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Biological Resource Assessment

Tesseron Winery P22-00309
Planning Commission Hearing Date
July 2, 2025

Biological Resources Assessment

Tesseron Vineyards Winery

Sonoma County and Napa County, California

November 2024

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Recommended Citation:
Madrone Ecological Consulting, LLC (Madrone). 2024. *Biological Resources Assessment for Tesseron Vineyards Winery*. Prepared for Tesseron Vineyards. Published on 8 November 2024.

Executive Summary

This report documents the regulatory background, methods, results, and recommendations of the Biological Resources Assessment (BRA) for the proposed development of a wine cave at the existing Tesseron Vineyard property, Napa County, California. The wine cave will ultimately be under the soil surface; however, construction involves surface excavation of the cave, widening or temporary disturbance along existing winery roads, soil disposal and revegetation, and improvements to an associated water line and water tower that extends to the west into Sonoma County (Project Area).

The Project Area contains 7.3-acres of annual grassland, 1.3 acres of mixed oak woodland, 2.4-acres of disturbed or developed lands, and 0.1 acres of agricultural lands. There are no wetlands or drainages within the footprint of the proposed development area and potential waters are limited to an ephemeral drainage that crosses under the access road. The Project will not substantially interfere with native wildlife species, wildlife corridors, and or native wildlife nursery sites. The Project will not significantly contribute to habitat loss or habitat fragmentation.

No special-status species were observed during the reconnaissance level survey. The Project will result in temporary impacts to suitable habitat for special-status plants (bend-flowered fiddleneck, narrow-anthered brodiaea, congested-head hayfield tarweed, Jepson's leptosiphon and Cobb Mountain lupine), as well as Swainson's hawk, common nesting birds, Pallid bat, Crotch bumble bee, and native trees. The Project has been designed to minimize permanent land conversion, and the Project will not significantly reduce habitat for local or regional special-status plants or animals. Resource specific avoidance and minimization measures are included in **Section 7.0** and include appropriately timed surveys, consultation with agencies if necessary, and tree replacement as outlined in the Project plans.

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1.0 INTRODUCTION

This report presents the results of a Biological Resources Assessment (BRA) conducted for the Tesseron Vineyards Winery Project Area (Study Area). The Tesseron Vineyards Winery property is located at 1100 Wall Road. The Study Area is primarily located in western Napa County with water line and water tower improvements extending into eastern Sonoma County. The approximately 11-acre Study Area is located in portions of Sections 23, 24, and 26, Township 7 North, Range 6 West (MDB&M) of the "Rutherford, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 2021) (**Figure 1**).

1.1 Project Description

The proposed Project includes installation of a wine cave and associated infrastructure at the existing Tesseron Vineyard property. While the wine cave will ultimately be under the soil surface, construction involves surface excavation of the cave. The Project may require widening or temporary disturbance along existing winery roads and improvements to an associated water line and water tower that extends to the west into Sonoma County. Additionally, the Study Area includes three potential spoils disposal areas, where soil excavated from the cave location will be spread in low stockpiles in an adjacent pasture on the Tesseron Vineyard property. An erosion and sediment control plan, and native tree removal and replanting, are incorporated into the site plan. The current site plan is included as **Attachment A**. Impacts have been analyzed based on the maximum proposed disturbance area, which is also referred to in this document as the Study Area (**Figure 2**).

2.0 REGULATORY SETTING

This section describes federal, state and local laws and policies that are relevant to this assessment of biological resources.

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 protects species that are federally listed as endangered or threatened with extinction. FESA prohibits the unauthorized "take" of listed wildlife species. Take includes harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such activities. Harm includes significant modifications or degradations of habitats that may cause death or injury to protected species by impairing their behavioral patterns. Harassment includes disruption of normal behavior patterns that may result in injury to or mortality of protected species. Civil or criminal penalties can be levied against persons convicted of unauthorized "take." In addition, FESA prohibits malicious damage or destruction of listed plant species on federal lands or in association with federal actions, and the removal, cutting, digging up, damage, or destruction of listed plant species in violation of state law. FESA does not afford

any protections to federally listed plant species that are not also included on a state endangered species list on private lands with no associated federal action.

2.1.2 Clean Water Act, Section 404

Section 404 of the Federal Clean Water Act requires that a Department of the Army permit be issued prior to the discharge of dredged or fill material into waters of the United States, including some wetlands. The U.S. Army Corps of Engineers (USACE) administers this program, with oversight from the U. S. Environmental Protection Agency. As of the date of this document, waters of the United States (waters of the U.S.) are defined as follows (40 CFR 120.2):

1. Waters which are:
    i. Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
    ii. The territorial seas; or
    iii. Interstate waters;
2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under item (5) below;
3. Tributaries of waters identified in items (1) or (2) above that are relatively permanent, standing or continuously flowing bodies of water;
4. Wetlands adjacent to the following waters:
    i. Waters identified in item (1) of this section; or
    ii. Relatively permanent, standing or continuously flowing bodies of water identified in items (2) or (3) above and with a continuous surface connection to those waters;
5. Intrastate lakes and ponds not identified in paragraphs (1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in items (1) or (3) above.

Under the current definition of waters of the U.S., "adjacent" means *having a continuous connection*. Waters subject to regulation under Section 404 are referred to as "jurisdictional waters".

2.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, any native migratory bird, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11.). Likewise, Section 3513 of the California Fish & Game Code prohibits the "take or possession" of any migratory non-game bird identified under the MBTA. Therefore, activities that may result in the injury or mortality of native migratory birds, including eggs and nestlings, would be prohibited under the MBTA.

2.1.4 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act of 1940 (as amended) provides for the protection of bald eagle and golden eagle by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit [16 USC 668(a); 50 CFR 22]. The USFWS may authorize take of bald eagles and golden eagles for activities where the take is associated with, but not the purpose of, the activity and cannot practicably be avoided (50 CFR 22.26).

2.2 State Regulations

2.2.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires evaluations of project effects on biological resources. Determining the significance of those effects is guided by Appendix G of the CEQA guidelines. These evaluations must consider direct effects on a biological resource within the project site itself, indirect effects on adjacent resources, and cumulative effects within a larger area or region. Effects can be locally important but not significant according to CEQA if they would not substantially affect the regional population of the biological resource. Significant adverse impacts on biological resources would include the following:

- Substantial adverse effects on any species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS) (these effects could be either direct or via habitat modification);
- Substantial adverse impacts to species designated by the California Department of Fish and Game (2009) as Species of Special Concern;
- Substantial adverse effects on riparian habitat or other sensitive habitat identified in local or regional plans, policies, or regulations or by CDFW and USFWS;
- Substantial adverse effects on federally protected wetlands defined under Section 404 of the Clean Water Act (these effects include direct removal, filling, or hydrologic interruption of marshes, vernal pools, coastal wetlands, or other wetland types);
- Substantial interference with movements of native resident or migratory fish or wildlife species population, or with use of native wildlife nursery sites;
- Conflicts with local policies or ordinances protecting biological resources (e.g. tree preservation policies); and
- Conflict with provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

2.2.2 State Endangered Species Act

With limited exceptions, the California Endangered Species Act (CESA) of 1984 protects state-designated endangered and threatened species in a way similar to FESA. For projects on private property (i.e. that for

which a state agency is not a lead agency), CESA enables CDFW to authorize take of a listed species that is incidental to carrying out an otherwise lawful project that has been approved under CEQA (Fish & Game Code Section 2081).

2.2.3 California Fully Protected Species

The State of California first began to designate species as "fully protected" prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code, § 4700 for mammals, § 3511 for birds, § 5050 for reptiles and amphibians, and § 5515 for fish) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species. CDFW will issue licenses or permits for take of these species for necessary scientific research or live capture and relocation pursuant to the permit.

2.2.4 California Species of Special Concern

The Species of Special Concern (SSC) are defined by CDFW as a species, subspecies, or distinct population of an animal native to California that are not legally protected under the federal or California ESAs or the California Fish and Game Code, but currently satisfies one or more of the following criteria:

- The species has been completely extirpated from the state or, as in the case of birds, it has been extirpated from its primary seasonal or breeding role.
- The species is listed as federally (but not state) threatened or endangered or meets the state definition of threatened or endangered but has not formally been listed.
- The species has or is experiencing serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status.
- The species has naturally small populations that exhibit high susceptibility to risk from any factor that if realized, could lead to declines that would qualify it for state threatened or endangered status.

SSC are typically associated with habitats that are threatened. Project-related impacts to SSC, state-threatened or endangered species are considered "significant" under CEQA.

2.2.5 Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but

includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

2.2.6 Clean Water Act, Section 401

Section 401 of the Clean Water Act requires any applicant for a 404 permit in support of activities that may result in any discharge into waters of the United States to obtain a water quality certification with the Regional Water Quality Control Board (RWQCB). This program is meant to protect these waters and wetlands by ensuring that waste discharged into them meets state water quality standards. Because the water quality certification program is triggered by the need for a Section 404 permit (and both programs are a part of the Clean Water Act), the definition of waters of the United States under Section 401 is the same as that used by the USACE under Section 404.

2.2.7 California Water Code, Porter-Cologne Act

Waters that are not considered waters of the U.S. may be considered waters of the State of California (waters of the State) under the Porter-Cologne Water Quality Control Act (Porter-Cologne). Porter-Cologne, from Division 7 of the California Water Code, requires any person discharging waste or proposing to discharge waste that could affect the quality of waters of the state to file a report of waste discharge (RWD) with the RWQCB. The RWQCB can waive the filing of a report, but once a report is filed, the RWQCB must either waive or adopt water discharge requirements (WDRs). Waters of the State are defined as any surface water or groundwater, including saline waters, within the boundaries of the state of California.

2.2.8 California Fish and Game Code, Section 1600 – Streambed and Lake Alteration

The CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the Fish and Game Code, Section 1602, requires notification to CDFW of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, state or local government agency, or public utility that proposes an activity that will:

- substantially divert or obstruct the natural flow of any river, stream or lake;
- substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or
- deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

For the purposes of Section 1602, rivers, streams and lakes includes those that are dry for periods of time as well as those that flow year round. If notification is required and CDFW believes the proposed activity is likely to substantially adversely affect fish and wildlife resources, it will require that the parties enter into a Lake or Streambed Alteration Agreement (LSAA).

2.2.9 California Fish and Game Code, Section 3503.5 - Raptor Nests

Section 3503.5 of the Fish and Game Code makes it unlawful to take, possess, or destroy hawks or owls, unless permitted to do so, or to destroy the nest or eggs of any hawk or owl.

2.3 Local Regulations

2.3.1 Napa County General Plan

The Napa County (County) General Plan (General Plan) was adopted in 2008 and updated in 2013. The General Plan provides a broad framework for planning the future for the County. The following wetland and biological resource policies in the General Plan may be applicable to the Project.

- Policy CON-13: The County shall require that all discretionary residential, commercial, industrial, recreation, agricultural, and water development projects consider and address impacts to wildlife habitat and avoid impacts to fisheries and habitat supporting special-status species to the extent feasible. Where impacts to wildlife and special-status species cannot be avoided, projects shall include effective mitigation measures and management plans including provisions to:

  a) Maintain the following essentials for fish and wildlife resources:
     - Sufficient dissolved oxygen in the water.
     - Adequate amounts of proper food.
     - Adequate amounts of feeding, escaping, and nesting habitat.
     - Proper temperature through maintenance and enhancement of streamside vegetation volume flows, and velocity of water.

  b) Employ supplemental planting and maintenance of grasses, shrubs and trees of like quality and quantity to provide adequate vegetation cover to enhance water quality, minimize sedimentation and soil transport, and provide adequate shelter and food for wildlife and special-status species and maintain the watersheds, especially streams side areas, in good condition.

  c) Provide protection for habitat supporting special-status species through buffering or other means.

  d) Provide replacement habitat of like quantity and quality on- or off-site for special-status species to mitigate impacts to special-status species.

  e) Enhance existing habitat values, particularly for special-status species, through restoration and replanting of native plant species as part of discretionary permit review and approval.

  f) Require temporary or permanent buffers of adequate size (based on the requirements of the special-status species) to avoid nest abandonment of birds and raptors associated with construction and site development activities.

g) Demonstrate compliance with applicable provisions and regulations of recovery plans for listed species.

- Policy CON-17: Preserve and protect native grasslands, serpentine grasslands, mixed serpentine chaparral, and other sensitive biotic communities and habitats of limited distribution. The County, in its discretion, shall require mitigation that results in the following standards:

  a) Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species.

  b) In other areas, avoid disturbances to or removal of sensitive natural plant communities and mitigate potentially significant impacts where avoidance is infeasible.

  c) Promote protection from overgrazing and other destructive activities.

  d) Encourage scientific study and require monitoring and active management where biotic communities and habitats of limited distribution or sensitive natural plant communities are threatened by the spread of invasive non-native species.

  e) Require no net loss of sensitive biotic communities and habitats of limited distribution through avoidance, restoration, or replacement where feasible. Where avoidance, restoration, or replacement is not feasible, preserve like habitat at a 2:1 ratio or greater within Napa County to avoid significant cumulative loss of valuable habitats.

  Policy CON-18: To reduce impacts on habitat conservation and connectivity:

  a) In sensitive domestic water supply drainages where new development is required to retain between 40 and 60 percent of the existing (as of June 16, 1993) vegetation onsite, the vegetation selected for retention should be in areas designed to maximize habitat value and connectivity.

  b) Outside of sensitive domestic water supply drainages, streamlined permitting procedures should be instituted for new vineyard projects that voluntarily retain valuable habitat and connectivity, including generous setbacks from streams and buffers around ecologically sensitive areas.

  c) Preservation of habitat and connectivity of adequate size, quality and configuration to support special-status species should be required within the project area. The size of habitat and connectivity to be preserved shall be determined based on the specific needs of the species.

  d) The County shall require discretionary projects to retain movement corridors of adequate size and habitat quality to allow for continued wildlife use based on the needs of the species occupying the habitat.

  e) The County shall require new vineyard development to be designed to minimize the reduction of wildlife movement to the maximum extent feasible. In the event the County concludes that such development will have a significant impact on wildlife movement, the County may require the applicant to relocate or remove existing perimeter fencing installed on or after February 16, 2007 to offset the impact cause by the new vineyard development.

- Policy CON-19: The County shall encourage the preservation of critical habitat areas and habitat connectivity through the use of conservation easements or other methods as well as through continued implementation of the Napa County Conservation Regulations associated with vegetation retention and setbacks from waterways.

- Policy CON-24: Maintain and improve oak woodland habitat to provide for slope stabilization, soil protection, species diversity, and wildlife habitat through appropriate measures including one or more of the following:

  a) Preserve, to the extent feasible, oak trees and other significant vegetation that occur near the heads of drainages or depressions to maintain diversity of vegetation type and wildlife habitat as part of agriculture projects.

  b) Comply with the Oak Woodlands Preservation Act regarding oak woodland preservation to conserve the integrity and diversity of oak woodlands, and retain, to the maximum extent feasible, existing oak woodland and chaparral communities and other significant vegetation as part of the residential, commercial, and industrial approvals.

  c) Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio [3:1 ratio; see below] when retention of existing vegetation is found to be infeasible. Removal of oak species limited in distribution shall be avoided to the maximum extent feasible.

  d) Support hardwood cutting criteria that require retention of adequate stands of oak trees sufficient for wildlife, slope stabilization, soil production be left standing.

  e) Maintain, to the extent feasible, a mixture of oak species which is needed to ensure acorn production. Black, canyon, live, and brewer oaks as well as blue, white, scrub and live oaks are common associations.

2.3.2 Napa County Code

A number of Napa County codes and ordinances may apply to the Study Area.

Stream Setbacks: Napa County Code 18.108.025 requires stream setbacks for new land clearings for agricultural purposes. "Stream" is defined by Napa County (18.108.030) as:

- a watercourse designated by a solid line or dash and three dots symbol on the largest scale of the United State Geological Survey (USGS) maps most recently published, or any replacement to that symbol (i.e., USGS "blue-line");
- any watercourse which has a well-defined channel with a depth greater than four feet and banks steeper than 3:1 and contains hydrophilic vegetation, riparian vegetation or woody-vegetation including tree species greater than ten feet in height; or
- those watercourses listed in Resolution No. 94-19. No clearing of land for new agricultural uses as defined by Section 18.08.040 shall take place within the following setbacks from streams:

Table 1. Napa County Stream Setbacks

Slope (Percent)	Required Setback
< 1	35 feet
1-5	45 feet
5-15	55 feet
15-30	65 feet
30-40	85 feet
40-50	105 feet
50-60	125 feet
60-70	150 feet

In 2020, Napa County added to Code Section 18.108.025 the requirement of a 35-foot setback for ephemeral or intermittent streams not meeting Napa County's criteria for a stream. Likewise, 18.108.026 was added to the Napa County Code to include the requirement of a 50-foot setback from the delineated edge of wetland boundaries.

Vegetation Preservation and Replacement: Napa County Code 18.108.100 requires the following conditions when granting a discretionary permit for activities within an erosion hazard area (slopes greater than 5 percent):

- Existing vegetation shall be preserved to the maximum extent consistent with the project. Vegetation shall not be removed if it is identified as being necessary for erosion control in the approved erosion control plan or if necessary for the preservation of threatened or endangered plant or animal habitats as designated by state or federal agencies with jurisdiction and identified on the County's environmental sensitivity maps. Existing trees six inches in diameter or larger, measured at diameter breast height (DBH), or tree stands of trees six inches DBH or larger located on a site for which either an administrative or discretionary permit is required shall not be removed until the required permits have been approved by the decision-making body and tree removal has been specifically authorized.
- Trees to be retained or designated for retention shall be protected through the use of barricades or other appropriate methods to be placed and maintained at their drip line during the construction phase. Where appropriate, the director may require an applicant to install and maintain construction fencing around the trees to ensure their protection during earthmoving activities. Where removal of vegetation is necessitated or authorized, the director or designee may require the planting of replacement vegetation of an equivalent kind, quality and quantity.

2.3.2 Napa County Water Quality and Tree Protection Ordinance

In 2019, the Napa County Board of Supervisors adopted the Water Quality and Tree Protection Ordinance (WQTPO) modifying Chapter 18.108 Conservation Regulations to provide additional protections to trees and water quality. As noted above, additional setbacks were added for ephemeral and intermittent drainages and wetlands (Chapters 18.108.025 and 18.108.026). In addition, the tree retention required by Chapter 18.108.027 in sensitive domestic water supply drainages was increased from 60 percent to 70

percent retention based on vegetation that existed within the parcel in 1993. In addition, Chapter 18.108.020 subsections C and D were added to the Code that require a minimum of 70 percent retention of canopy cover based on the vegetation that existed within the parcel in 2016, and the preservation or mitigation of trees at a minimum 3:1 ratio. Ordinance No. 1438 allowed for a one-time exemption from the Ordinance (and therefore the updated stream setbacks, wetland setbacks, and vegetation retention requirements) for projects that are less than 15 percent slope and less than 5 acres.

2.3.3 Napa County Voluntary Oak Woodlands Management Plan, the California Oak Woodlands Conservation Act, and the Oak Woodlands Conservation Program

The Napa County Voluntary Oak Woodlands Management Plan provides a conservation framework for the preservation of oak woodland resources in the County. By having this Plan in place, the County and landowners in the County can obtain funding through the State Oak Woodlands Conservation Program, established by the Oak Woodlands Conservation Act. The Act was added to the California Environmental Quality Act (CEQA) statutes as Public Resources Code Section 21083.4. It requires the County to determine whether a project would result in a significant impact on oak woodlands, and to mitigate significant impacts through conservation easements, re-planting, contributing to the Oak Woodlands Conservation Fund, or other measures devised by the County. Exemptions are allowed for certain land uses, including conversion of oak woodlands on agricultural land used for commercial purposes.

2.3.4 Sonoma County Vineyard Erosion and Sediment Control Ordinance

The Sonoma County Vineyard Erosion and Sediment Control Ordinance (VESCO) (Chapter 11 of the Sonoma County Code) was enacted for the purpose of regulating grading, drainage improvement, and vineyard and orchard site development within the unincorporated area of the county, and to establish ministerial standards for those activities that minimizes hazards to life and property; protects against soil loss and the pollution of watercourses with soil and other pollutants; protects the safety, use, and stability of public rights-of-way and watercourses; protects watercourses from obstruction, and protects life and property from the deleterious effects of flooding; protects against the destruction of human remains and archaeological resources; protects streams, lakes, ponds, and wetlands; and promotes water conservation. Under VESCO, potential vineyard and orchard developers are required to submit a Biological Resources Assessment prepared in accordance with the *Sonoma County Guidelines for Preparing Biological Resource Studies or Assessments*.

2.3.5 Sonoma County Valley Oak Tree Ordinance

The Sonoma County Valley Oak Tree Ordinance (Chapter 26, Article 67 of the Sonoma County Code) (Tree Ordinance) regulates the removal and preservation of Valley oak (*Quercus lobata*) trees within designated Valley Oak Habitat Combining Districts (VOH) within Sonoma County. Under the Tree Ordinance, removal of any individual Valley oak trees with a diameter at breast height (DBH) equal to or greater than 20 inches, or multiple Valley oak trees with a cumulative DBH of 60" within a VOH must be mitigated.

The Study Area does not fall within the VOH and this ordinance is not discussed further in this report.

2.3.6 Sonoma County Riparian Conservation Ordinance

The Sonoma County Riparian Corridor Combining Zone (Chapter 26, Article 65 of the Sonoma County Code) protects riparian corridors along designated streams within Sonoma County. The minimum streamside conservation area shall be shown in the zoning database followed by the minimum setback for agricultural cultivation (e.g., RC 100/50). Where the drip line of existing riparian trees with trunks located wholly or partially within the streamside conservation area extends beyond the streamside conservation area boundary, as indicated in the zoning database, the boundary shall be increased to include the outer drip line of the riparian trees.

The zoning database for designated streams does not show any regulated features within the Study Area.

3.0 METHODOLOGY

3.1 Literature Review

A list of special-status species with potential to occur within the Study Area was developed by conducting a query of the following databases:

- California Natural Diversity Database (CNDDB) (CNDDB 2023) query of the Study Area and all areas within 5 miles of the Study Area (**Figures 3 and 4**);
- The CNDDB Spotted Owl Observations Database (CNDDB 2023)
- USFWS Information for Planning and Conservation (IPaC) (USFWS 2023a) query for the Study Area (**Attachment B**);
- Bumble Bee Watch query of all occurrences in Napa County (The Xerces Society, et al. 2023);
- California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (CNPS 2023) query of the "Rutherford, California" USGS topo quadrangle, and the eight surrounding quadrangles (**Attachment C**); and
- Western Bat Working Group (WBWG) Species Matrix (WBWG 2023).

In addition, any special-status species that are known to occur in the region, but that were not identified in any of the above database searches were also analyzed for their potential to occur within the Project area.

For the purposes of this Biological Resources Assessment, special-status species is defined as those species that are:

- listed as threatened or endangered, or proposed or candidates for listing by the USFWS or National Marine Fisheries Service;
- listed as threatened or endangered and candidates for listing by CDFW;
- identified as Fully Protected species or species of special concern by CDFW;
- identified as Medium or High priority species by the WBWG (WBWG 2023); and

- plant species considered to be rare, threatened, or endangered in California by the CNPS and CDFW [California Rare Plant Rank (CRPR) 1, 2, and 3]:
    - CRPR 1A: Plants presumed extinct.
    - CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere.
    - CRPR 2A: Plants extirpated in California, but common elsewhere.
    - CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere.
    - CRPR 3: Plants about which the CNPS needs more information – a review list.

3.2 Field Surveys

Madrone Ecological Consulting (Madrone) senior biologist Bonnie Peterson conducted a field survey of various portions of the Study Area on 18 October 2023 to assess the suitability of habitats on-site to support special-status species. Meandering pedestrian surveys were performed throughout the Study Area. Vegetation communities were classified in accordance with *The Manual of California Vegetation, Second Edition* (Sawyer, Keeler-Wolf and Evens 2009), primarily accessed online (CNPS 2023), and plant taxonomy was based on the nomenclature in the Jepson eFlora (Jepson Flora Project 2023). Surveys were conducted as outlined in the *Napa County in Guidelines for Preparing Biological Resources Reconnaissance Surveys* (Napa County 2016a) and *Guidelines for Preparing Special-status Plant Studies* (Napa County 2016b); however, due to timing, a protocol-level rare plant survey was not able to be conducted. A list of all plant and wildlife species observed during field surveys is included as **Attachment D**.

4.0 EXISTING CONDITIONS

The Study Area is situated on the eastern slope of the Mayacamas Mountains and slopes from the northwest to southeast. Elevations range from approximately 1540 feet above mean sea level (MSL) at the south edge of the property to approximately 1840 feet at the water towers. Surrounding properties are in agriculture and rural residential uses. The Study Area is located in the San Pablo Bay watershed (18050002) and intermittent tributaries in the vicinity generally flow east to Dry Creek.

The Study Area is comprised of California annual grasslands, mixed oak woodland, agricultural lands and developed/disturbed areas (**Figures 5a** and **5b**). Access to the Study Area is from the south via an asphalt road, which extends north through fenced pastures to a barn and parking areas, winery facilities, and a residence. Olive orchards and vineyards are primarily located along the western slope of the Mayacamas Mountains in mixed oak and broadleaf woodland. The Study Area includes a dirt access road that extends to the northeast through annual grasslands and three annual grassland ridges. Annual grasslands within the Study Area are currently grazed. Due to the slope of the Study Area a number of roadside ditches, culverts, and erosional features cross the Study Area roads. While the majority of these features lack a distinct bed, bank, and channel, a more substantial ephemeral stream crosses the access road through existing culverts in the northeast portion of the Study Area and is described in further detail in **Section 4.2**. Representative site photographs are provided in **Attachment E**.

4.1 Terrestrial Vegetation Communities

4.1.1 California Annual Grassland

Non-native grasslands occur throughout cismontane California, particularly in the Sierra Foothills, Coast Range, Transverse Range, and Peninsular Ranges and are situated on a variety of landscapes including coastal terraces, valley bottoms, and foothills underlain by a variety of soil types. These grasslands are not considered sensitive by the CDFW or Napa County. None of the California annual grassland within the Study Area falls within Sonoma County.

The Study Area contains 7.3 acres of California annual grassland which is generally dominated by soft brome (*Bromus hordeaceus*), medusahead (*Elymus caput-medusae*), wild oat (*Avena fatua*), and Italian ryegrass (*Festuca perennis*). Other species occurring frequently in this vegetation community within the Study Area include hayfield tarweed (*Hemizonian conjesta var. luzulifolia*), vetch (*Vicia* sp.), English plantain (*Plantago lanceolata*), prickly lettuce (*Lactuca serriola*), and filaree (*Erodium* sp.). Erosional features created by seasonal stormwater runoff, as well as roadside ditches and culverts occur occasionally within this community.

4.1.2 Mixed Oak Woodland

The Study Area contains 1.3-acres of mixed oak woodland. Mixed oak woodlands are considered sensitive under the Napa County General Plan Conservation Element Policy CON-24 (oak woodland retention); however, they are not a considered a sensitive natural community by CDFW. The Study Area does not fall within the Sonoma County VOH. Mixed oak woodland occurs along the eastern slope of the Mayacamas Mountains, which includes patches along the access road to the Tesseron Vineyards Winery and the eastern agricultural areas. The mixed oak woodland has a primarily closed canopy that is dominated by coast live oak (*Quercus agrifolia*), with scattered cover of blue oak (*Q. douglasii*), valley oak (Q. *lobata*), and California bay (*Umbellularia californica*). Other species that occur within this habitat type are olive (*Olea europaea*) and common fig (*Ficus carica*). The understory is dominated by poison oak (*Toxicodendron diversilobum*), rough hedgenettle (*Stachys rigida*), hedge parsley (*Torilis arvensis*), Italian thistle (*Carduus pycnocephalus*), rip-gut brome (*Bromus diandrus*), and dogtail grass (*Cynosurus echinatus*). The herbaceous understory is comprised of species typical of the annual brome grassland described above.

4.1.4 Agricultural

A portion of the Study Area crosses an olive orchard and vineyard within the Tesseron Vineyards Winery property, comprising 0.1-acre of agricultural land. These areas are in active agriculture and are mowed and maintained as necessary for the health of the crops. The understory of these agricultural areas is minimal due to active management, but where present is primarily herbaceous weedy species typical of the California annual grassland described above.

4.1.5 Disturbed/Developed

As the Study Area is an active vineyard and winery the Study Area includes 2.4-acres of disturbed or developed barns, warehouses, water tanks, and paved working areas. Heavily disturbed areas occur in isolated locations along access roads, barns, and winery structures. Most of these areas are paved, gravel, or otherwise unvegetated, and lack ruderal vegetation.

4.2 Aquatic Resources

A protocol level aquatic resources delineation has not been completed for the Study Area; however, potentially jurisdictional wetlands and other waters of the U.S. within the Study Area were mapped during the site visit. The Study Area does not contain any wetlands. Potential waters of the U.S. in the greater vicinity were added to the map for reference and compiled from the National Wetland Inventory (NWI) (USFWS 2023) and aerial imagery (historicaerials.com 2023, Google Earth, 2023). Aquatic resources mapped within the Study Area are depicted in **Figures 6**, and total is less than 0.01 acre. For areas within the Study Area these features were mapped in the field utilizing a submeter GPS Unit (Arrow 100). For the surrounding Study Area the NWI data set was utilized.

The two ephemeral drainage that cross the Study Area occur along the dirt access road to the proposed spoils areas in the Napa County portion of the Study Area. These features range from 2 to 6 feet wide with a rocky unvegetated bed. The lack of hydric vegetation indicated these features flow following rain events. One of these features is indicated as a blue dotted line on the USGS topography map (**Figure 1**) and is likely regulated by the Napa County ordinance outlining setbacks for agricultural projects.

4.3 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Database (NRCS 2023), seven soil mapping units occur within the Study Area (**Figure 7**). The proposed development area is primarily (110) Boomer-Forward-Felta Complete 30-50% slopes while the spoils disposal area is comprised of (114) Bressa-Dibble complex 30-50% slopes. Soils within the Study Area are generally ph neutral clays and loams derived from volcanic rock. None of the mapped soils are known to be hydric (NRCS 2023).

5.0 RESULTS

Table 2 provides a list of special-status species that were evaluated, including their listing status, habitat associations, and their potential to occur in the Study Area. The following set of criteria was used to determine each species' potential for occurrence on the site:

- Present: Species occurs on the site based on CNDDB records, and/or was observed on the site during field surveys.
- High: The site is within the known range of the species and suitable habitat exists.
- Moderate: The site is within the known range of the species and very limited suitable habitat exists.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Plants				
Allium peninsulare var. franciscanum Franciscan onion	--	CRPR 1B.2	Prefers cismontane woodland or foothill grasslands associated with clay, serpentine soils or volcanic slopes. Found at elevations between 170 - 1,000 feet.	**Low.** The Study Area contains suitable woodland and grasslands on volcanic soils to support this species; however, the Study Area is above the documented elevation range for this species.
Alopecurus aequalis var. sonomensis Sonoma alopecurus	FE	CRPR 1B.1	Occurs in freshwater marshes and swamps and riparian scrub at elevations between 15 - 1,200 feet.	**No Habitat Present.** No suitable marsh or riparian habitat is present within the Study Area.
Amorpha californica var. napensis Napa false indigo	--	CRPR 1B.2	Occurs in broadleafed upland forest openings, chaparral, and cismontane woodland. Found at elevations from 165 - 6560 feet. Blooms April-July.	**Low.** Woodlands within the Study Area provide suitable habitat. This species was not observed during the October 2023 reconnaissance survey; however, the survey was conducted outside the typical blooming season for this species.
Amsinckia lunaris Bent-flowered fiddleneck	--	CRPR 1B.2	Found in cismontane woodland, valley and foothill grasslands, and coastal bluff scrub at elevations of 10-1640 feet. Blooms March-June.	**Moderate.** Annual grasslands within the Study Area provide suitable habitat for this species. This species was not observed during the October 2023 reconnaissance survey; however, the survey was conducted outside the typical blooming season for this species.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name **(Common Name)**	**Federal Status[1]**	**State Status[1]**	**Habitat Requirements**	**Potential for Occurrence**
Arctostaphylos stanfordiana ssp. *decumbens* Rincon Ridge manzanita	--	CRPR 1B.1	Cismontane woodlands and chaparral in rhyolitic soils between 245 - 1,215 feet.	**No Habitat Present.** Rhyolitic soils do not occur within the Study Area.
Astragalus claranus Clara Hunt's milk vetch	FE	CE, CRPR 1B.1	Annual herb found in on clay, rock, serpentinite, or volcanic soils in chaparral, cismontane woodland, and grassland habitats between 245 - 900 feet. Blooms April-May.	**Low.** Annual grasslands within the Study Area provide suitable habitat for this species but is outside the documented elevation range for this species. This species was not observed during the October 2023 reconnaissance survey; however, the survey was conducted outside the typical blooming season for this species.
Astragalus tener var. tener Alkali milk-vetch	--	CRPR 1B.2	Include elevation range. Playas, Valley and foothill grassland (adobe clay), Vernal pools	**No Habitat Present.** The Study Area does not support vernal pools or other mesic areas.
Balsamorhiza macrolepis Big-scale balsamroot	--	CRPR 1B.2	Prefers chaparral, cismontane woodland, and valley and foothill grasslands. Often associated with serpentine soils. Found in elevations between 150-5100 feet. Blooms March-June.	**Low.** May occur in woodland and grassland areas, but the Study Area lacks suitable serpentine soils. This species as not observed during the October 2023 survey and would have been identifiable at that time.
Blennosperma bakeri Sonoma sunshine	FE	CE, CRPR 1B.1	Occurs in vernal pools and mesic areas in valley and foothill grasslands between 30 - 360 feet. Restricted to the Santa Rosa Plain and Sonoma Valley.	**No Habitat Present.** The Study Area does not support vernal pools or other mesic areas and is outside the documented range for this species.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Brodiaea leptandra Narrow-flowered California brodiaea	--	CRPR 1B.2	Found in volcanic soils in broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland at elevations from 360 - 3,000 feet.	**Moderate**. The Study Area contains suitable habitats on volcanic soils to support this species.
Castilleja ambigua var. meadii Mead's owls-clover	--	CRPR 1B.1	Found in meadows, seeps, and vernal pools between 1475 - 1560 ft.	**No Habitat Present.** Study Area lacks typical mesic habitat.
Ceanothus confusus Rincon Ridge ceanothus	--	CRPR 1B.1	Found on volcanic or serpentine soils in closed-cone coniferous forest, chaparral, and cismontane woodland at elevations from 250 - 3,500 feet.	**Low.** Typical chaparral on serpentine soils do not occur in the Study Area. No ceanothus were observed during October 2023 site visit.
Ceanothus divergens Calistoga ceanothus			Found on volcanic rocky or serpentine soils in chaparral habitats at elevations from 56 - 3,150 feet.	**No Habitat Present.** Chaparral does not occur in the Study Area. No ceanothus were observed during October 2023 site visit.
Ceanothus purpureus Holly-leaved ceanothus	--	CRPR 1B.2	Found on rocky volcanic soils in chaparral and cismontane woodland between 390 - 2,100 feet.	**Low.** Typical chaparral on rocky soils do not occur in the Study Area. No ceanothus were observed during October 2023 site visit.
Ceanothus sonomensis Sonoma ceanothus	--	CRPR 1B.2	Found on volcanic sandy or serpentine soils in chaparral habitats at elevations from 705 - 2625 feet.	**No Habitat Present.** Chaparral does not occur in the Study Area. No ceanothus were observed during October 2023 site visit.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name **(Common Name)**	**Federal Status[1]**	**State Status[1]**	**Habitat Requirements**	**Potential for Occurrence**
Centromadia parryi ssp. *parryi* Pappose tarplant	--	CRPR 1B.2	Found on alkaline soils in coastal prairie, meadows, seeps, coastal salt marshes, and valley/foothill grasslands. Found at sea level to 1380 feet.	**No Habitat Present.** Alkaline soils are not present within the Study Area, and the Study area is outside the documented elevation range.
Downingia pusilla Dwarf downingia	--	CRPR 2B.2	Mesic areas in valley and foothill grassland, and vernal pools at 3 – 1,460 feet.	**No Habitat Present.** The Study Area does not support vernal pools or other mesic areas and is outside the documented range for this species.
Erigeron greenei Greene's narrow-leaved daisy	--	CRPR 1B.2	Generally found on serpentine or volcanic substrates in chaparral at elevations between 260-3,295 feet. Blooms May through September.	**No Habitat Present.** No chaparral is present within the Study Area.
Eryngium constancei Loch Lomond button-celery	FE	CE, CRPR 1B.2	Occurs in vernal pools. Found at elevations between 1510-2805 feet.	**No Habitat Present.** Study Area lacks vernal pool habitat.
Eryngium jepsonii Jepson's coyote-thistle	--	CRPR 1B.2	Occurs in vernal pools, valley and foothill grasslands. Found at elevations between 10-985 feet.	**No Habitat Present.** Study Area lacks vernal pool habitat.
Extriplex joaquinana San Joaquin spearscale	--	CRPR 1B.2	Found in seasonal alkali wetlands or alkali sink scrub. Found between 5-2740 feet.	**No Habitat Present.** No seasonal wetlands, sinks, or other mesic habitats occur within the Study Area.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name **(Common Name)**	**Federal Status[1]**	**State Status[1]**	**Habitat Requirements**	**Potential for Occurrence**
Fritillaria liliacea Fragrant fritillary	--	CRPR 1B.2	Elevations between 10-1,350 feet. Found in cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grasslands, often on serpentine soils.	**Low**. Although this species is often found on serpentine soils, it has been found on clay soils. Upland habitats throughout the site represent marginally suitable habitat for the species; however, the Study Area is outside the documented elevation range for this species.
Hemizonia congesta ssp. *congesta* Congested-head hayfield tarweed	--	CRPR 1B.2	Elevations between 70-1,800 feet. Occurs in valley and foothill grasslands, often on roadsides.	**Moderate.** Suitable habitat is present in grassland areas.
Hesperolinon sharsmithiae Sharsmith's western flax	--	CRPR 1B.2	Found in serpentine soils in chaparral at elevations between 885- 985 feet.	**No Habitat Present.** No serpentine soils or chaparral are present in the Study Area.
Horkelia tenuiloba Thin-lobed horkelia	--	CRPR 1B.2	Occurs on sandy soils in mesic openings in broadleafed forests, chaparral, and valley and foothill grasslands at elevations between 160-1,640 feet.	**No Habitat Present.** Sandy soils and mesic areas do not occur in the Study Area.
Lasthenia burkei Burke's goldfields	FE	CE, CRPR 1B.1	Vernal pools and mesic meadows and seeps at elevations from 50-1,970 feet. Note that within the Santa Rosa Plain, this species is only known to occur below 150 feet (USFWS 2016b).	**No Habitat Present.** Study Area lacks vernal pools or other mesic areas.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Lasthenia conjugens Contra Costa goldfields	FE	CRPR 1B.1	Found in mesic areas in cismontane woodland and annual grassland and in alkaline playas and vernal pools. Occurs in areas between 0-1540 ft.	**No Habitat Present.** The Study Area lacks mesic areas.
Lathyrus jepsonii var. jepsonii Delta tule pea	None	CRPR 1B.2	Prefers tidally influenced channels, brackish marshes and swamps below 15 feet.	**No Habitat Present.** The Study Area lacks wetlands or marshes and is outside the of the range of this species.
Layia septentrionalis Colusa layia	None	CRPR 1B.2	Favors chaparral, cismontane woodland, or foothill grasslands with sandy or serpentine soils between 330-3595 feet elevation.	**Low.** The Study Area lacks typical sandy or serpentine soils.
Legenere limosa Legenere	--	CRPR 1B.1	Occurs in vernal pools between 5-2885 feet.	**No Habitat Present.** The Study Area lacks vernal pools or other mesic areas.
Leptosiphon jepsonii Jepson's leptosiphon	--	CRPR 1B.2	Occurs in chaparral and cismontane woodland, usually on volcanic soils. Elevations between 330-1,640 feet.	**Moderate.** Suitable habitat is present in woodlands throughout the Study Area.
Lessingia hololeuca Wooly-headed lessingia	--	CRPR 3	Broadleafed upland forest, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland between 50-1000 feet.	**Low.** May occur in annual grasslands and woodlands; however, the Study Area is outside the documented elevation range for this species.
Lilaeopsis masonii Mason's lilaeopsis	--	Rare, CRPR 1B.1	This species prefers brackish or freshwater swamps, intertidal marshes, and riparian scrub at or below 35 feet.	**No Habitat Present.** The Study Area lacks swamps, marshes, or other mesic areas and is outside the elevation range for this species.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Limnanthes vinculans Sebastopol meadowfoam	FE	CE, CRPR 1B.1	Vernal pools, mesic areas in valley and foothill grassland, and meadows and seeps at elevations from 50-1,000 feet.	**No Habitat Present.** The Study Area lacks wetlands or other mesic areas.
Lupinus sericatus Cobb Mountain lupine	--	CRPR 1B.2	Found in broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest (900 –5005 feet). Blooms March-June.	**Moderate.** Suitable habitat in woodland areas through the Study Area.
Micropus amphibolus Mt. Diablo cottonweed	--	CRPR 3.2	Rocky areas in chaparral, forests and woodlands, and grassland (145-2,70 feet).	**No Habitat Present.** No rocky areas are present within the Study Area.
Navarretia leucocephala ssp. *bakeri* Baker's navarretia	--	CRPR 1B.1	Favors vernal pools, cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grasslands between 15-5710 feet.	**No Habitat Present.** Vernal pools or other mesic areas do not occur within the Study Area.
Navarretia leucocephala ssp. *pauciflora* Few-flowered navarretia	FE	CT, CRPR 1B.1	Favors vernal on volcanic ash between 1310-2805 feet.	**No Habitat Present.** Vernal pools or other mesic areas do not occur within the Study Area.
Navarretia rosulate Marin County navarretia	--	CRPR 1B.2	Found on rocky serpentine soils in chaparral or closed-cone coniferous forest (655-2085 feet)	**No Habitat Present.** Study Area lacks suitable chaparral or closed-cone coniferous forest or typical soils.
Penstemon newberryi var. sonomensis Sonoma beardtongue	--	CRPR 1B.3	Known from fewer than 20 occurrences. Found in rocky soils (2295–4495 feet)	**No Habitat Present.** No chaparral present.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Plagiobothrys hystriculus Bearded popcornflower	--	CRPR 1B.1	Often in vernal swales, and in mesic areas of valley and foothill grassland and vernal pool margins (0 – 899 feet).	**No Habitat Present.** The Study Area does not contain mesic areas.
Plagiobothrys strictus Calistoga popcornflower	FE	CE, CRPR 1B.1	Found in alkaline seeps in meadows and seeps, Valley and foothill grassland, and vernal pools	**No Habitat Present.** The Study Area does not contain alkaline seeps or vernal pools.
Poa napensis Napa blue grass	FE	CE, CRPR 1B.1	Found near thermal springs in meadows and seeps in grasslands at elevations of 330-655 feet.	**No Habitat Present** The Study Area does not contain thermal springs.
Sagittaria sanfordii Sanford's arrowhead	--	CRPR 1B.2	Occurs in emergent marsh habitat, typically associated with drainages, canals, or irrigation ditches (0-2,135 feet).	**No Habitat Present.** The Study Area lacks suitable aquatic habitat.
Sidalcea hickmanii ssp. napensis Napa checkerbloom	--	CRPR 1B.2	Occurs in chaparral between 1360-2000 feet. Only known from to occurrences.	**No Habitat Present.** The Study Area lacks suitable chaparral habitat.
Sidalcea oregana ssp. hydrophila Marsh checkerbloom	--	CRPR 1B.2	Found in meadows, seeps, and riparian forests (3610–7545 feet).	**No Habitat Present.** No mesic areas occur within the Study Area.
Sidalcea oregana ssp. valida Kenwood Marsh checkerbloom	FE	CE, CRPR 1B.1	Found in freshwater marshes and swamps (375-490 feet).	**No Habitat Present.** No marshes occur within the Study Area, and the Study Area is outside of the known range of the species.
Spergularia macrotheca var. longistyla Long-styled sand-spurrey	--	CRPR 1B.2	Found in alkaline soils in marshes and swamps, meadows and seeps between 0-855 feet.	**No Habitat Present.** No alkaline marshes, seeps or mesic areas occur within the Study Area, and the Study Area is outside of the known range of the species.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Streptanthus hesperidis Green jewelflower	--	CRPR 1B.2	Rocky or serpentine chaparral opening and cismontane woodlands between 425-2495 feet.	**No Habitat Present.** The Study Area lacks rocky or serpentine openings.
Symphyotrichum lentum Suisun Marsh aster	--	CRPR 1B.2	Occurs in fresh and saltwater marshes, often associated with blackberries, cattails, and bulrush between sea level and 10 feet.	**No Habitat Present.** The Study Area is outside of the elevational range of the species and lacks suitable wetland habitats.
Trichostema ruygtii Napa bluecurls	--	CRPR 1B.2	Found in open areas, generally thin clay soils, possibly seasonally saturated, vernal pools in chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, at elevation between 100-2230 feet. Blooms June through October.	**Low.** Suitable habitat occurs in annual grassland and woodland habitats within the Study Area; however, this species was not observed during the October 2023 site visit conducted during the blooming season.
Trifolium amoenum Two-forked clover	FE	CRPR 1B.	Considered extinct until 1993. Only known from two occurrences, one in Sonoma County and one in Marin. Occurs in coastal bluff scrub, valley and foothill grassland between 15-1,360 feet elevation.	**Low.** Outside the documented range for this species.
Trifolium hydrophilum Saline clover	--	CRPR 1B.2	Grows in marshes, swamps, and vernal pools with alkaline soils between sea level and 985 feet elevation.	**No Habitat Present.** The Study Area does not contain suitable marshes, swamps, or vernal pools with alkaline soils.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Viburnum ellipticum Oval-leaved viburnum	--	CRPR 2B.3	Found in chaparral, cismontane woodlands, and lower cismontane coniferous forests generally on north-facing slopes or otherwise more mesic areas at elevations from 700-4,600 feet.	**No Habitat Present.** The chaparral and oak woodland within the Study Area are not sufficiently mesic to support this species.
Invertebrates				
Bombus crotchii Crotch bumble bee	--	CC	Occurs in open grasslands and scrub habitats. This species occurs primarily in California including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (William et al 2014). This species was historically common in the Central Valley of California, but now appears to be absent from most of it, especially in the center of its historic range (Williams et al. 2014; Richardson et al 2014).	**Moderate.** Grassland habitats contain suitable foraging flower populations and represent potential nesting and overwintering habitat.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Bombus occidentalis Western bumble bee	--	CC	Meadows and grasslands with the blended floral resources are the appropriate habitat for this sub-species. While the Western bumble bee was historically known throughout the mountains and northern coast of California, it is now largely confined to high elevation sites and a small handful of records on the northern California coast (Cameron et al. 2011a; Xerces Society 2012: Williams et al. 2014; Xerces Society et al. 2017).	**Low.** Grassland habitats contain suitable foraging flower populations and represent potential nesting and overwintering habitat. A single occurrence has been documented approximately 2.5-miles west of the Study Area from 1962 (CNDDB occ. 168). However, recent data and range maps indicated that the Study Area is outside of the current range of this species.
Danaus plexippus Monarch butterfly	FC	--	Migratory species; most prevalent in the Central Valley in summer and early fall. Dependent upon milkweed (*Asclepias* species) plants as their exclusive larval host.	**No Habitat Present.** No substantial milkweed populations are present.
Syncaris pacifica California freshwater shrimp	FE	--	Found in low elevation (3580 feet), low gradient, perennial freshwater streams or intermittent streams with perennial pools. Known from Marin, Sonoma, and Napa Counties north of San Francisco Bay.	**No Habitat Present.** The Study Area lacks freshwater streams or perennial pools.
Fish				

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name **(Common Name)**	**Federal Status[1]**	**State Status[1]**	**Habitat Requirements**	**Potential for Occurrence**
Oncorhynchus mykiss irideus, Population 8 Steelhead – Population 8	FT	--	Anadromous species requiring freshwater water courses with gravelly substrates for breeding. The young remain in freshwater areas before migrating to estuarine and marine environments.	**No Habitat Present.** The Study Area lacks suitable freshwater streams to support this species.
Amphibians				
Dicamptodon ensatus California giant salamander	--	CSC	Damp forests in or near clear, cold perennial streams and seeps. Found under logs, bark, rocks, and other objects near streams. Often remain in aquatic larval form for several years.	**No Habitat Present.** No perennial streams occur within the Study Area.
Rana boylii Foothill yellow-legged frog	--	CT	Prefers gravelly or sandy streams with open banks near woodlands.	**No Habitat Present.** The Study Area does not contain suitable streams.
Rana draytonii California red-legged frog	FT	CSC	Breeds in permanent to semi-permanent aquatic habitats including lakes, ponds, marshes, creeks, and other drainages.	**No Habitat Present.** The Study Area does not contain suitable semi-permanent aquatic habitat.
Taricha rivularis Red-bellied newt	--	CSC	Found in coastal woodlands and redwood forests along the north coast of California.	**No Habitat Present.** Coastal woodlands and redwood forests do not occur within the Study Area.
Reptiles				
Actinemys marmorata Northwestern pond turtle	FC	CSC	Occurs in ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat.	**No Habitat Present.** The Study Area does not contain suitable aquatic habitat to support this species.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Chelonia mydas Green sea turtle	FT	--	Found in all temperate and tropical waters throughout the world near coastlines, around islands, and in bays and protected shores, especially in areas with seagrass beds.	**No Habitat Present.** The Study Area is not situated near the ocean.
Birds				
Buteo swainsoni Swainson's hawk	--	CT	Nests in large trees, preferably in riparian areas. Forages in fields, cropland, irrigated pasture, and grassland near large riparian corridors.	**Moderate.** The trees on-site are suitable nesting habitat, and the annual grassland is suitable foraging habitat.
Cypseloides niger Black swift	--	CSC	Rare, local summer resident of mountain foothill canyons which arrives in mid-may for nesting. Nests on cliffs behind or adjacent to waterfalls.	**No Habitat Present.** Cliffs do not occur within the Study Area.
Falco peregrinus anatum American peregrine	--	CFP	Nests on cliff ledges, tall buildings, or other tall man-made structures near open areas for foraging.	**Low.** Suitable breeding habitat is absent. This species may forage in annual grasslands.
Strix occidentalis caurina Northern spotted owl	CT	CT, CSC	Inhabits mature and old-growth conifer forests with high structural complexity.	**No Habitat Present.** Conifer forests do not occur within the Study Area.
Progne subis Purple martin	--	CSC	Nests in tall bridges and overpasses near water and open areas.	**No Habitat Present.** No tall bridges or overpasses are present within the Study Area.

Table 2. Special-Status Species with Potential to Occur within the Study Area

Scientific Name (Common Name)	Federal Status[1]	State Status[1]	Habitat Requirements	Potential for Occurrence
Mammals				
Antrozous pallidus Pallid bat	--	CSC, WBWG H	Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees (e.g., basal hollows of coast redwoods *Sequoia sempervirens]* and giant sequoia [*Sequoiadendron giganteum]*, bole cavities of oaks [*Quercus* species], exfoliating Ponderosa pine [*Pinus ponderosa]* and valley oak [*Quercus lobata]* bark, deciduous trees in riparian areas, and fruit trees in orchards), and various human structures such as bridges (especially wooden and concrete girder designs), barns, porches, bat boxes, and human-occupied as well as vacant buildings (WBWG 2023).	**Moderate.** Suitable roosting habitat for this species is present in barns and sheds and tree hollows and under exfoliating bark on trees scattered throughout the Study Area.

[1]*Status Codes:*

CC - CDFW Candidate for Listing *CE - CDFW Endangered* *CFP - CDFW Fully Protected* *CRPR - California Rare Plant Rank* *CR - California Rare*
CSC - CDFW Species of Concern *CT - CDFW Threatened* *FE - Federally Endangered* *FT - Federally Threatened* *FC - Federal Candidate for Listing*
WBWG H - Western Bat Working Group High Threat Rank *WBWG M - Western Bat Working Group Medium Threat Rank*

- Low: The site is within the known range of the species and there is marginally suitable habitat or the species was not observed during protocol-level surveys conducted on-site.
- Absent/No Habitat Present: The site does not contain suitable habitat for the species, the species was not observed during protocol-level floristic surveys conducted on-site, or the site is outside the known range of the species.

Figures 3 and 4 are exhibits displaying CNDDB occurrences within five miles of the Study Area. Below is a discussion of all special-status plant and animal species with potential to occur within the Study Area.

5.1 Plants

5.1.1 Bent-flowered fiddleneck

Bent-flowered fiddleneck (*Amsinckia lunaris*) is not state or federally listed, but it is classified as a CRPR List 1B.2 species. This annual herb is found in valley and foothill grasslands, cismontane woodlands, and coastal bluff scrub (CNPS 2023). This plant occurs at elevations between 10 and 1,640 feet, and blooms from March through June (CNPS 2023).

The annual grasslands within the Study Area represent suitable habitat for this species. This species has not been documented within the Study Area; however, the reconnaissance level survey was conducted outside the typical blooming season for this species.

5.1.2 Narrow-anthered brodiaea

Narrow-anthered brodiaea (*Brodiaea leptandra*) is not federally or state listed, but it is classified as a CRPR List 1B.2 plant. It is a perennial herbaceous species that occurs in broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forests, and valley and foothill grassland between 360 and 3,000 feet (CNPS 2023). Narrow-anthered brodiaea blooms from May through July and has been found on volcanic soils (CNPS 2023).

The disturbed annual grassland and Valley oak woodland throughout the Study Area provide suitable habitat for this species. This species has not been documented within the Study Area; however, the reconnaissance level survey was conducted outside the typical blooming season for this species.

5.1.3 Congested-head hayfield tarweed

Congested-head hayfield tarweed (*Hemizonia congesta ssp. congesta*) is not federally or state listed, but it is classified as a CRPR List 1B.2 species. This annual herb is found in valley and foothill grassland and sometimes occurs on roadsides (CNPS 2023). This plant occurs at elevations between 65 feet and 1,835 feet, and blooms from April through November (CNPS 2023).

The Annual California annual grasslands throughout the Study Area represent suitable habitat for this species. This species was not observed during the 2023 reconnaissance level survey of the site, which was conducted during the blooming season. The closely related Woodrush tarweed (*Hemizonia congesta ssp. luzulifolia*) was in bloom and identified during this survey.

5.1.4 Jepson's leptosiphon

Jepson's leptosiphon (*Leptosiphon jepsonii*) is not state or federally listed, but it is classified as a CRPR List 1B.2 plant. This annual herb is found in chaparral, cismontane woodland, and valley and foothill grassland within occasional volcanic microhabitats (CNPS 2023). Jepson's leptosiphon occurs at elevations between 930 and 1.640 feet, and blooms from March through May (CNPS 2023).

The annual grasslands within the Study Area represent suitable habitat for this species. This species has not been documented within the Study Area; however, the reconnaissance level survey was conducted outside the typical blooming season for this species.

5.1.5 Cobb Mountain lupine

Cobb Mountain lupine (*Lupinus sericatus)* is not a state or federally listed species but is classified as a CRPR List 1B.2 plant. This perennial herb is found in various habitats including broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest and is known to colonize disturbed sites. Cobb Mountain lupine is found between approximately 900 and 5,050 feet in elevation and blooms from March through June (CNPS 2023).

Mixed oak woodlands and annual grasslands within the Study Area represent suitable habitat for this species. This species has not been documented within the Study Area; however, the reconnaissance level survey was conducted outside the typical blooming season for this species.

5.2 Invertebrates

5.2.1 Crotch Bumble Bee

Crotch bumble bee (*Bombus crotchii*) has a limited distribution in southwestern North America. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, West Desert, Great Valley, and adjacent foothills through most of southwestern California. It also occurs in Mexico (Baja California and Baja California Sur) (Williams et al. 2014) and has been documented in southwest Nevada, near the California border.

All bumblebees have three basic requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the entirety of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens. Nests are often located underground in abandoned holes made by ground squirrels, mice, and rats or occasionally abandoned bird nests

(Osborne et al 2008). Some species nest on the surface of the ground (in tufts of grass) or in empty cavities. Bumble bees that nest aboveground may require undisturbed areas with nesting resources such as grass and hay to protect nests. Furthermore, areas with woody cover, or other sheltered areas provide bumble bees sites to build their nests (e.g., downed wood, rock walls, brush piles, etc.).

Bumble bees depend on the availability of habitats with a rich supply of floral resources that bloom continuously during the entirety of the colony's life. The queen collects nectar and pollen from flowers to support the production of her eggs, which are fertilized by sperm she has stored from mating the previous fall. As generalist foragers, bumble bees do not depend on anyone flower type. They generally prefer flowers that are purple, blue or yellow; they are essentially blind to the color red. Very little is known about hibernacula, or overwintering sites utilized by most bumble bees. Generally, bumble bees overwinter in soft, disturbed soil (Goulson 2010), under leaf litter or other debris (Williams et al. 2014), in abandoned holes made by fossorial mammals or occasionally in abandoned bird nests (Osborne at all 2008). Some species do nests on the surface of the ground (in grassy tussocks) or in empty cavities (hollow logs, dead trees, under rocks, etc.). Queens most likely overwinter in small cavities just below or on the ground surface.

In California, *B. crochii* inhabits open grasslands and scrub habitats. This species occurs primarily in California including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (William et al 2014). This species was historically common in the Central Valley of California, but now appears to be absent from most of it, especially in the center of its historic range (Williams et al. 2014; Richardson et al 2014). While this species does not appear within the vicinity on the records search, little documentation is available for bumble bees and the Study Area is within the current range of the species.

5.3 Birds

5.3.1 Swainson's Hawk

Swainson's hawk (*Buteo swainsoni*) is a raptor species that is not federally listed, but is listed as threatened by CDFW. Breeding pairs typically nest in tall trees associated with riparian corridors, and forage in grassland, irrigated pasture, and cropland with a high density of rodents (Shuford and Gardali 2008). The Central Valley populations breed and nest in the late spring through early summer before migrating to Central and South America for the winter (Shuford and Gardali 2008).

The annual grasslands throughout the Study Area represent suitable foraging habitat for Swainson's hawk, and the trees within the Study Area provide suitable nesting habitat. The nearest documented Swainson's hawk nest is known from CNDDB occurrence 2268, documented in 2013 approximately 4.5 miles east of the Study Area in an oak tree along the Napa River.

5.4 Mammals

5.4.1 Pallid Bat

Pallid bat (*Antrozous pallidus*) is not federally or state listed, but is considered a CDFW species of special concern, and is classified by the WBWG as a High priority species. It favors roosting sites in crevices in rock outcrops, caves, abandoned mines, hollow trees, and human-made structures such as barns, attics, and sheds (WBWG 2023). Though pallid bats are gregarious, they tend to group in smaller colonies of 10 to 100 individuals. It is a nocturnal hunter and captures prey in flight, but unlike most American bats, the species has been observed foraging for flightless insects, which it seizes after landing (WBWG 2023).

Tree hollows and exfoliating bark on trees, barns, and sheds throughout the Study Area represent suitable roosting habitat for pallid bat. Pallid bat has not been documented in the CNDDB within 5 miles of the Study Area (CNDDB 2023).

6.0 IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

This section details potential impacts to the biological resources discussed above associated with construction of the Project, as discussed in **Section 1.1** and shown in **Attachment A**.

6.1 Special-Status Plant Species

The vegetation communities proposed for impact represent suitable habitat for a bend-flowered fiddleneck, narrow-anthered brodiaea, congested-head hayfield tarweed, Jepson's leptosiphon and Cobb Mountain lupine. If present, direct impacts to these species would result from ground disturbance associated within construction. As permanent conversion of habitats will be minimal, effects are expected to be temporal. While these species have not been documented in the Study Area, protocol-level special-status plant surveys have not yet been conducted.

6.2 Crotch bumble bee

Soil distribution in California grasslands associated with the disposal of spoils would result in the temporary disturbance of 7.3-acres of potential crotch bumble bee foraging habitat. As no permanent conversion of California grasslands are proposed, these effects are expected to be temporal. However, as Crotch bumble bee is a candidate for listing under the CESA, impacts to individual bumble bees may be considered a significant impact.

6.3 Swainson’s Hawk

Construction activities and removal of trees within the Project area could destroy nest or disturb nesting Swainson’s hawk if present. As Swainson’s hawk is listed under CESA, take of the species is may be

considered a significant impact. No permanent loss of Swainson's hawk foraging habitat is anticipated as impacts to California grassland will be temporal.

6.4 Pallid Bat

Buildings and trees throughout the Study Area are potential habitat for pallid bat. While no buildings are proposed for removal, if special-status bats were roosting in trees to be removed by the Project they could be injured or killed during the removal.

6.5 Nesting Songbirds

Common bird species protected by the MBTA have the potential to nest in trees, shrubs, and on the ground throughout the Study Area. If nesting on-site, removal of the nests would impact these species. Furthermore, birds nesting in avoided areas adjacent to construction could be disturbed by construction, which could result in nest abandonment.

6.6 Aquatic Resources

The Project does not propose to directly impact the ephemeral drainages within or adjacent to the Study Area. Use of the dirt access road and disposal of spoils in uplands adjacent to the ephemeral drainages may result in temporary impacts due to wind or water born soil erosion. Per the project plans (**Attachment A**) Standard Erosion Control and Best Management Practices are a component of the Project design and there are no expected significant impacts to aquatic resources from the proposed Project. However, one of the ephemeral drainage is noted as a blue line feature of the topography map and agricultural setbacks may apply.

6.7 Critical Habitat, Essential Fish Habitat, Wildlife Corridors

The Study Area does not contain any designated Critical Habitat (USFWS 2023) or Essential Fish Habitat (NMFS 2023). The Study Area is also not within a designated wildlife corridor (Napa County 2005). While common wildlife species presumably utilize the Study Area on a local scale, the Study Area itself does not provide corridor functions beyond connecting similar California grassland and oak woodland habitats. While construction activities may result in temporary disturbance to this wildlife movement, the Project as proposed would not result in structures or activities that would alter the wildlife movement in the area.

6.8 Native Trees and Oak Woodlands

In order to excavate the wine cave and install associated infrastructure, the Project proposes to remove 15 native trees, including four live oak and 11 California bay as shown in **Attachment A** page C6. The Project proposes to replant trees at a 3:1 ratio for all native trees that are removed consistent with Napa County requirements for the replacement of lost oak woodlands or preservation of like habitat on site. Protected

trees remaining onsite could be subject to construction-related impacts as a result of work within their Protected Zone. No native tree removal is proposed within the Sonoma County portion of the Study Area.

6.9 Potential Off-site Impacts

Project activities, including staging and spoils disposal are designed to fall with the Study Area. Temporary use of off-site access roads will be necessary to bring equipment and materials to the Project area. Per the Project plans (**Attachment A**) Standard Erosion Control and Best Management Practices are a component of the Project design and there are no expected significant impacts to off-site or local biological resources by the proposed Project.

6.10 Potential Cumulative Impacts

Cumulative biological effects result in a change in the environment from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. Loss of habitat can also be an important factor affecting the long-term survival of rare, threatened and endangered species. The Project will result in temporary losses to annual grassland and mixed oak woodland habitat during construction activities; however, habitats associated with the wine cave and spoils disposal will be restored through replanting and revegetation and no cumulative impacts are anticipated for the Project.

7.0 MITIGATION FOR IMPACTS TO SENSITIVE BIOLOGICAL RESOURCES

The following are mitigation measures that are often required by CEQA lead agencies for impacts to sensitive biological resources that may be associated with construction of the Project.

7.1 Special-Status Plant Species

Special-status plant surveys shall be conducted during the blooming period for the target species in areas proposed for impact prior to commencement of construction. Areas proposed for impact shall include all areas of temporary and permanent ground disturbance as well as any proposed spoils locations. The special-status plant surveys shall be conducted in accordance with the *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 1996), the *Botanical Survey Guidelines of the California Native Plant Society* (CNPS 2001), and *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). These protocols require conducting surveys at the appropriate time of year, when plants are identifiable and in bloom and/or in fruit (which often includes multiple visits to capture blooming and/or fruiting periods for all target plants), and includes ensuring that habitats are not disturbed prior to the survey so that any plants that are present may be documented. If no special-status plant species are found, no further mitigation would be required.

If special-status plants are found, then the following would apply:

- Avoidance: If the Project avoids the special-status plants and an associated "Avoidance Zone," then no impacts to the plants would occur, and no mitigation is necessary. The size of the Avoidance Zone needed to prevent impacts may vary based on the plant species and their habitat requirements. If an ESA or CESA listed special-status plant is found and is to be avoided, then an appropriate Avoidance Zone shall be developed in consultation with USFWS or CDFW (as applicable). If the species is not listed under ESA or CESA, an appropriate Avoidance Zone shall be developed by a qualified botanist in consultation with the County. Avoidance Zone areas may differ by species and site-specific conditions, and they should be developed such that the avoided special-status plant population is likely to persist in perpetuity. Avoidance zones may be based on a fixed buffer distance from the special-status plant population, at the limit of a hydrologic break, or as otherwise determined appropriate for the species in question. For plants associated with wetlands, the Avoidance Zone could be as large as 250 feet, but this zone may be as small as 50 feet for plant species that occur in uplands and do not appear to be associated with wetland hydrology.
- Impacts: If any impacts (direct or indirect) would occur to special-status plants, the Project Proponent shall mitigate according to one or a combination of the options below. A Special-Status Plant Mitigation Plan shall be developed and submitted to the County (or USFWS or CDFW as appropriate for ESA or CESA listed species). The Special-Status Plant Mitigation Plan shall be approved by the County, USFWS, or CDFW (as appropriate based on listing status) prior to issuance of a grading permit that would impact the plants. Note that the options below are minimum recommendations; the USFWS and/or CDFW may require additional mitigation if the plants are ESA or CESA listed.
    - Indirect impacts: Indirect impacts would occur if the Project avoids the mapped populations but affects a portion of an Avoidance Zone. Recommended mitigation for indirect impacts is 0.5:1 (mitigation: impacts) based on the acreage or numbers of plants that have impacts within their Avoidance Zone (if there are dense populations, acreage may be a better metric, while if there are relatively few, widely scattered plants, number of plants may be a better metric). Note that if less than 10% of the plants are indirectly impacted, this would not be considered a significant impact, and no mitigation is recommended for indirect impacts in this situation.
    - Direct impacts: Direct impacts would occur if grading or other direct disturbance occurs within mapped populations. Recommended mitigation for direct impacts is 1:1 for preservation of an existing population, or 2:1 for relocation/translocation of impacted plants/seeds. These ratios may be based on the acreage of occupied habitat or number of plants; this metric will be clearly defined in the Special-Status Plant Mitigation Plan.

<u>Special-Status Plant Mitigation Options:</u>

- <u>Preservation:</u> Identify one or more existing, unprotected populations of the special-status plant that will be impacted by the Project in the Project vicinity and protect this population in perpetuity by establishing a preserve on the land that supports those populations. Once the proposed mitigation area is approved by the County and/or USFWS/CDFW (as appropriate based

on listing status, if any), the mitigation area shall be protected by a recorded conservation easement or deed restriction and managed in accordance with a long-term management plan that maintains the habitats the conservation easement was established to protect (including the special-status plants). Additionally, a preserve management endowment or sufficient annual management funding as approved by the County or regulating agency shall be established to fund the long-term management outlined in the long-term management plan. As this option would preserve an existing, established population, there would be no temporal loss, and low risk of failure. As a result, the required mitigation ratio for this option would be 1:1. This ratio may be based on the acreage of occupied habitat or number of plants; this metric will be clearly defined in the Special-Status Plant Mitigation Plan. This option may be implemented at a mitigation/conservation bank if the target plant species is present at the bank, and the Special-Status Plant Mitigation Plan shall describe how the purchase of bank credits translates into appropriate 1:1 preservation.

- Relocation or Translocation: Mitigate impacts by establishment of a new special-status plant population or expansion of an existing special-status plant population. The proposed mitigation area may be on-site or off-site and shall be permanently protected by the recordation of a conservation easement or deed restriction, development of a long-term management plan that maintains the habitats that the conservation easement was established to protect, and include the establishment of a preserve management endowment, or sufficient annual management funding as approved by the County or regulating agency. The Project proponent would locate and protect the mitigation area(s), translocate seeds or relocate perennial plants to the mitigation area(s), monitor the translocated/relocated seeds/plants for a minimum of five years, and meet established success criteria as detailed in the Special-Status Plant Mitigation Plan. If the conditions are suitable, this could occur in the native tree planting area or California grassland areas that will be revegetated post construction. The minimum success criterion for this option would be 2:1 replacement of directly impacted plants and 1:1 replacement for indirectly impacted plants by year five of monitoring (or as otherwise required by the regulatory agencies). This ratio may be based on the acreage of occupied habitat or number of plants; this metric will be clearly defined in the Special-Status Plant Mitigation Plan. If the success criteria are not met, then additional habitat shall be set aside as set forth under Option 1 or as agreed upon by the County and/or USFWS/CDFW, as appropriate. Because population sizes for annual plants can vary widely from year to year, for Option 2, population counts or acreage mapping would be conducted in the last two years of monitoring, and the highest count or acreage shall be at least equivalent to the number of required replacement plants.
    - The following species shall be mitigated via seed collection:
        - Bent-flowered fiddleneck
        - Congested-head hayfield tarweed
        - Jepson's leptosiphon
    - The following species shall be mitigated via transplantation/relocation (note that to the extent seed can be collected from these plants as well, both transplantation and seeding would occur for these species):
        - Narrow-anthered brodiaea

- Cobb Mountain lupine

Potential plant relocation and seeding locations are included in Attachment F. The specific location selected for reseeding/relocation would depend on the microhabitat characteristics of the location where the plant is found on-site (if it is found), but generally, the following locations would be preliminarily recommended:

- Bent-flowered fiddleneck – pink and green hatched polygons, particularly along roadsides
- Narrow-anthered brodiaea – green or yellow hatched polygons, which are located on volcanic soils
- Congested-head hayfield tarweed – pink and green hatched polygons, particularly along roadsides
- Jepson's leptosiphon – yellow hatched polygon, which is located in a woodland on volcanic soils
- Cobb Mountain lupine – yellow hatched polygon, which is located in a woodland

7.2 Crotch Bumble Bee

To minimize direct impacts to crotch bumble bee, the following measures shall be implemented:

- Initial ground-disturbing work (e.g., grading, vegetation removal, staging) shall take place between September 1st and March 31st (i.e., outside the colony active period), if feasible, to avoid impacts on nesting special status bumble bees.
- If completing all initial ground-disturbing work between September 1st and March 31st is not feasible, then a senior level biologist with 10 or more years of experience conducting biological resource surveys within California will conduct a pre-construction survey for bumble bees in the area proposed for impact no more than 14 days prior to the commencement of construction activities. The survey will occur during the period from one hour after sunrise (> 65F and < 90F with low wind and no rain) to two hours before sunset. If the timing of the start of construction makes the survey infeasible due to the temperature requirements, the surveying biologist shall select the most appropriate days based on the National Weather Service seven-day forecast, and shall survey at a time of day that is closest to the temperature range stated above. The survey duration shall be commensurate with the extent of suitable floral resources (which represent foraging habitat) present at within the area proposed for impact and the level of effort shall be based on the metric of a minimum of one person-hour of searching per three acres of suitable floral resources/foraging habitat. A meandering pedestrian survey shall be conducted throughout the area proposed for impact in order to identify patches of suitable floral resources. Suitable floral resources for Crotch's bumble bee include species in the following families: Apocynaceae, Asteraceae, Boraginaceae, Fabaceae, and Lamiaceae. Suitable floral resources for western bumble bee include species in the following families: Asteraceae, Fabaceae, Rhamnaceae, and Rosaceae, as well as plants in the genera *Eriogonum* and *Penstemon*.

  At a minimum, pre-construction survey methods should include the following:

- Search areas with floral resources for foraging bumble bees. Observed foraging activity may indicate a nest is nearby, and therefore, the survey duration shall be increased when foraging bumble bees are present.
- If bumble bees are observed, attempt to identify the species by taking a picture.
- If special-status bumble bees are observed, watch any special-status bumble bees present and observe their flight patterns. Attempt to track their movements between foraging areas and the nest.
- Visually look for nest entrances. Observe burrows, any other underground cavities, logs, or other possible nesting habitat.
- If floral resources or other vegetation preclude observance of the nest, small areas of vegetation may be removed via hand removal, line trimming, or mowing to a height of no less than 4 inches to assist with locating the nest.
- Look for concentrated special-status bumble bee activity.
- Listen for the humming of a nest colony.

The biologist conducting the survey will record when the survey was conducted, a general description of any suitable foraging habitat/floral resources present, a description of observed bumble bee activity, a description of any vegetation removed to facilitate the survey, and their determination of if the survey observations suggest a special status bumble bee nest(s) may be present or if construction activities could otherwise harm the species. The report shall be submitted to the County prior to the commencement of construction activities. If no special-status bumble bees are located during the pre-construction survey or the bumble bees located are definitively determined not to be special status, then no further mitigation or coordination with CDFW is required.

If any sign(s) of a bumble bee nest is observed, and if it cannot be established the species present is not a special-status bumble bee, then construction will not commence until either 1) the positive identification of the bumble bees present as common (i.e., not special status) is completed by an experienced bumble bee taxonomist or 2) the completion of coordination with CDFW to identify appropriate mitigation measures, which may include but not be limited to: waiting until the colony active season ends, establishment of nest buffers, or obtaining an Incidental Take Permit from CDFW.

- It is recommended that project applicant also survey their project impact areas the year before construction begins in order to avoid potential last-minute delays associated with identifying special status bumble bees on-site immediately prior to construction activities. To be most effective, this optional survey should follow the protocol outlined above.
- Post-project the cave fill (cave roof) will be reseeded with a native wildflower seed mix to create pollinator habitat for various pollinator species, including bumble bees and butterflies. This area shall be actively maintained with noxious weeds and non-native being removed to ensure the establishment of native wildflowers (Attachment F).
- If, after coordination with CDFW, impacts to special status bees cannot be avoided, the applicant shall obtain an Incidental Take Permit (ITP) from CDFW prior to County approval of permits

authorizing construction, and the applicant shall implement all avoidance measures included in the ITP. Mitigation required by the ITP may include but will not be limited to, the Project Applicant translocating nesting substrate in accordance with the latest scientific research to another suitable location (i.e., a location that supports similar or better floral resources as the impact area), enhancing floral resources on areas of the Project site that will remain appropriate habitat, worker awareness training, and/or other measures specified by CDFW.

7.3 Swainson's Hawk and Common Nesting Birds

The following nest survey requirements apply if construction activities take place during the typical bird breeding/nesting season (typically February 15 through September 1).

7.3.1 Swainson's Hawk

A targeted Swainson's hawk nest survey shall be conducted throughout all accessible areas within ¼ mile of the Study Area no later than 14 days prior to construction activities. If an active Swainson's hawk nest is found within the Study Area or its ¼ mile buffer, construction shall cease within ¼ mile of the nest until a qualified biologist determines that the young have fledged or it is determined that the nesting attempt has failed. If the applicant desires to work within ¼ mile of the nest, the applicant shall consult with CDFW and the County to determine if the nest buffer can be reduced. The Project applicant, the qualified biologist, the County, and CDFW shall collectively determine the nest avoidance buffer, and what (if any) nest monitoring is necessary. If an active Swainson's hawk nest is found within the Study Area and is in a tree that is proposed for removal, then the Project applicant shall wait to remove the tree until nesting is completed as determined by a qualified biologist or consult with CDFW and obtain any required permits to remove the nest.

7.3.2 Other Birds

A pre-construction nesting bird survey shall be conducted by a qualified biologist within the Study Area and a 500-foot buffer from the Study Area, where access is available, no more than three (3) days prior to the initiation of construction. If there is a break in construction activity of more than two (2) weeks then subsequent surveys shall be conducted.

If active raptor nests are found no construction activities shall take place within 500 feet of the nest until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer will be established. These no-disturbance buffers may be reduced if a smaller buffer is proposed by the qualified biologist and approved by the after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, habituation to existing or ongoing activity, and nest concealment (are there visual or acoustic barriers between the proposed activity and the nest). A qualified biologist can visit the nest as needed to determine when the young have fledged and are no longer depending on the nest.

7.4 Pallid Bat

Pre-construction roosting bat surveys shall be conducted by a qualified biologist within 14 days prior to any tree removal that will occur during the breeding season (April through August). If pre-construction surveys indicate that no roosts of special-status bats are present, or that roosts are inactive or potential habitat is unoccupied, no further mitigation is required. If roosting bats are found, exclusion shall be conducted as recommended by the qualified biologist. Methods may include acoustic monitoring, evening emergence surveys, and the utilization of two-step tree removal supervised by the qualified biologist. Two-step tree removal involves removal of all branches that do not provide roosting habitat on the first day, and then the next day cutting down the remaining portion of the tree. Building exclusion methods may include such techniques as installation of passive one-way doors, or the installation of netting when the bats are not present to prevent their reoccupation. Once the bats have been excluded, tree or building removal may occur.

7.5 Native Trees

The Project results in the removal of fifteen native trees. To compensate for the loss of 15 native trees at a 3:1 ratio, 45 trees will be planted on the overall Tesseron Winery property (Attachment F). Additionally, to avoid impacts to protected trees, the improvement plans shall include a note and show placement of temporary construction fencing around trees to be protected in the Study Area.

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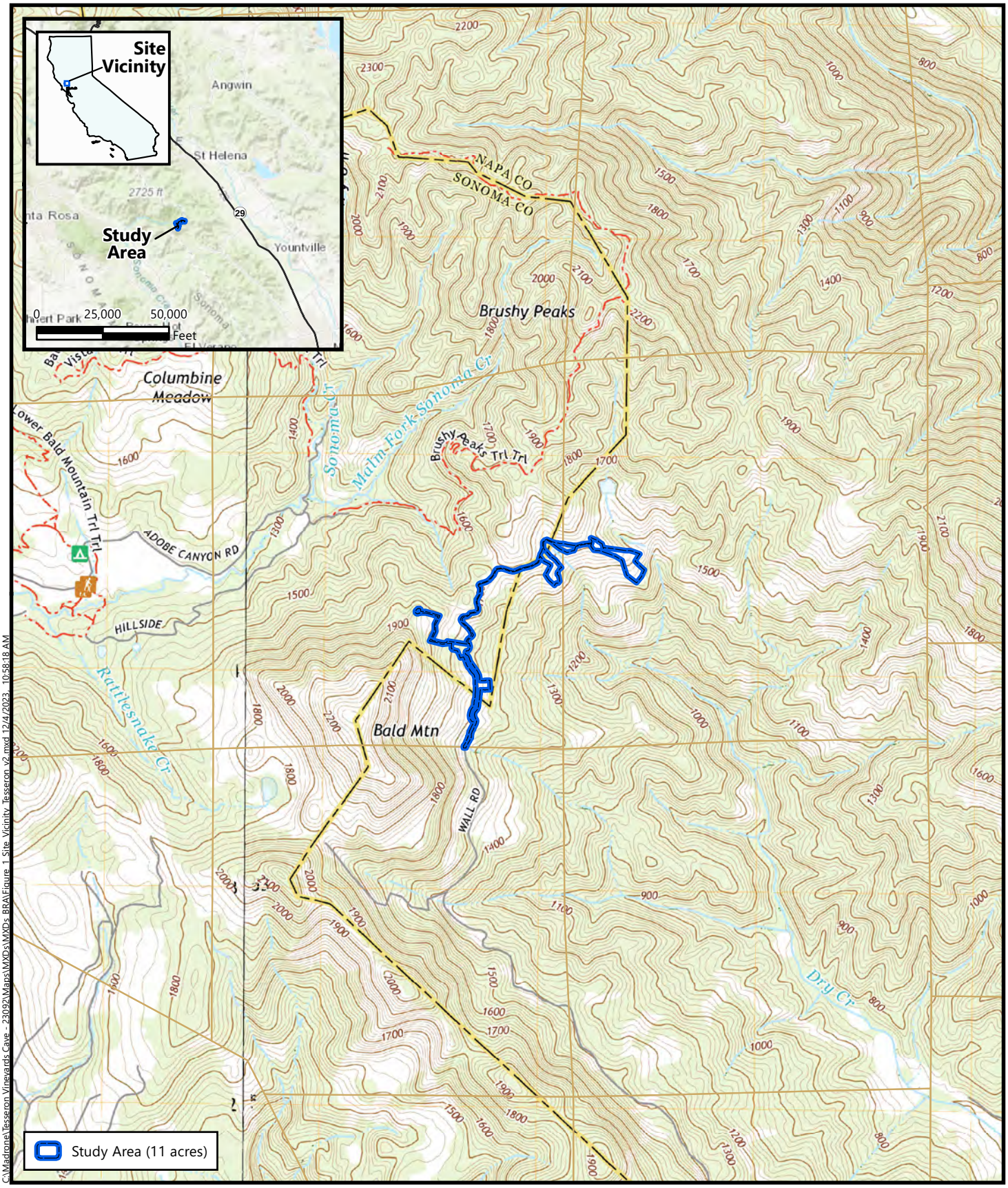
Figures



C:\Madrone\Tesseron Vineyards Cave - 23092\Maps\MXDs\MXDs BRA\Figure 1 Site Vicinity Tesseron v2.mxd 12/4/2023 10:58:18 AM

N

Feet
0 1,000 2,000

Note: USGS county boundary line does not match Sonoma County and Napa County datasets. Refer to current datasets.
Source: United States Geologic Survey, 2021.
Sections 23, 24, and 26. Township 7 North. Range 6 West, MDB&M
"Rutherford, California" 7.5-Minute Topographic Quadrangle
Latitude 38.435914, Longitude -122.484533

Figure 1
Site and Vicinity

Tesseron Vineyards Winery
Sonoma County and Napa County, California

MADRONE ECOLOGICAL CONSULTING

Figure 2
Study Area

Tesseron Vineyards Winery
Sonoma County and Napa County, California

Aerial Source: Pictometry, 20 February 2021, and The County of Napa, 30 April 2021.

Study Area (11 acres)
5-Mile Radius

Plant Species

1 - Bent-Flowered Fiddleneck
2 - Calistoga Ceanothus
3 - Calistoga Popcornflower
4 - Clara Hunt's Milk-Vetch
5 - Cobb Mountain Lupine
6 - Colusa Layia
7 - Dwarf Downingia
8 - Franciscan Onion
9 - Greene's Narrow-Leaved Daisy
10 - Jepson's Leptosiphon
11 - Kenwood Marsh Checkerbloom
12 - Napa False Indigo
13 - Narrow-Anthered Brodiaea
14 - Oval-Leaved Viburnum
15 - Rincon Ridge Ceanothus
16 - Rincon Ridge Manzanita
17 - Sonoma Beardtongue
18 - Sonoma Ceanothus
19 - Sonoma Sunshine
20 - Two-Fork Clover

Study Area

N

Miles
0 1 2

Source: *California Department of Fish and Wildlife*, October 2023.
Basemap Source: *National Geographic* and *ESRI*

Figure 3
California Natural Diversity Database
Occurrences of Plant Species

Tesseron Vineyards Winery
Sonoma County and Napa County, California

MADRONE ECOLOGICAL CONSULTING

C:\Madrone\Tesseron Vineyards Cave - 23092\Maps\MXDs\MXDs BRA\Figure 3 CNDDB Plants Resources_Tesseron v1.mxd 11/20/2023 10:40:48 AM

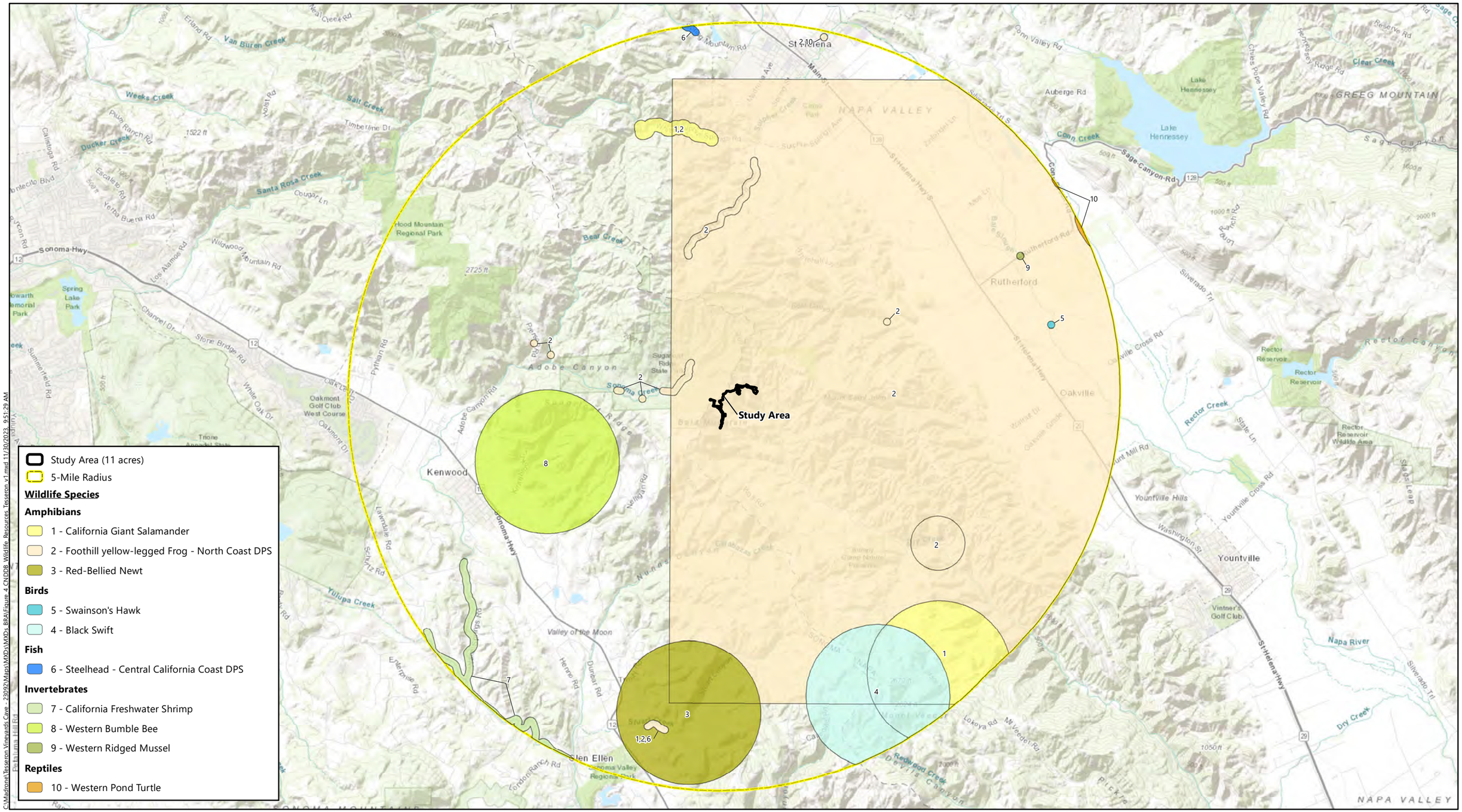


Figure 4
California Natural Diversity Database Occurrences of Wildlife Species

Tesseron Vineyards Winery
Sonoma County and Napa County, California

MADRONE ECOLOGICAL CONSULTING

Feet
0 82 164

Study Area (11 acres)
County Boundary Line

Vegetation Communities

Agriculture (0.1 acre)
California Annual Grasslands (7.3 acres)
Disturbed/Developed (2.4 acres)
Mixed Oak (1.3 acres)

Inset Area

Feet
0 820 1,640

N

Figure 5a
Vegetation Communities

Tesseron Vineyards Winery
Sonoma County and Napa County, California

MADRONE ECOLOGICAL CONSULTING

Note: Small sumation errors may occur due to rounding.
Aerial Source: Pictometry, 20 February 2021, and The County of Napa, 30 April 2021.

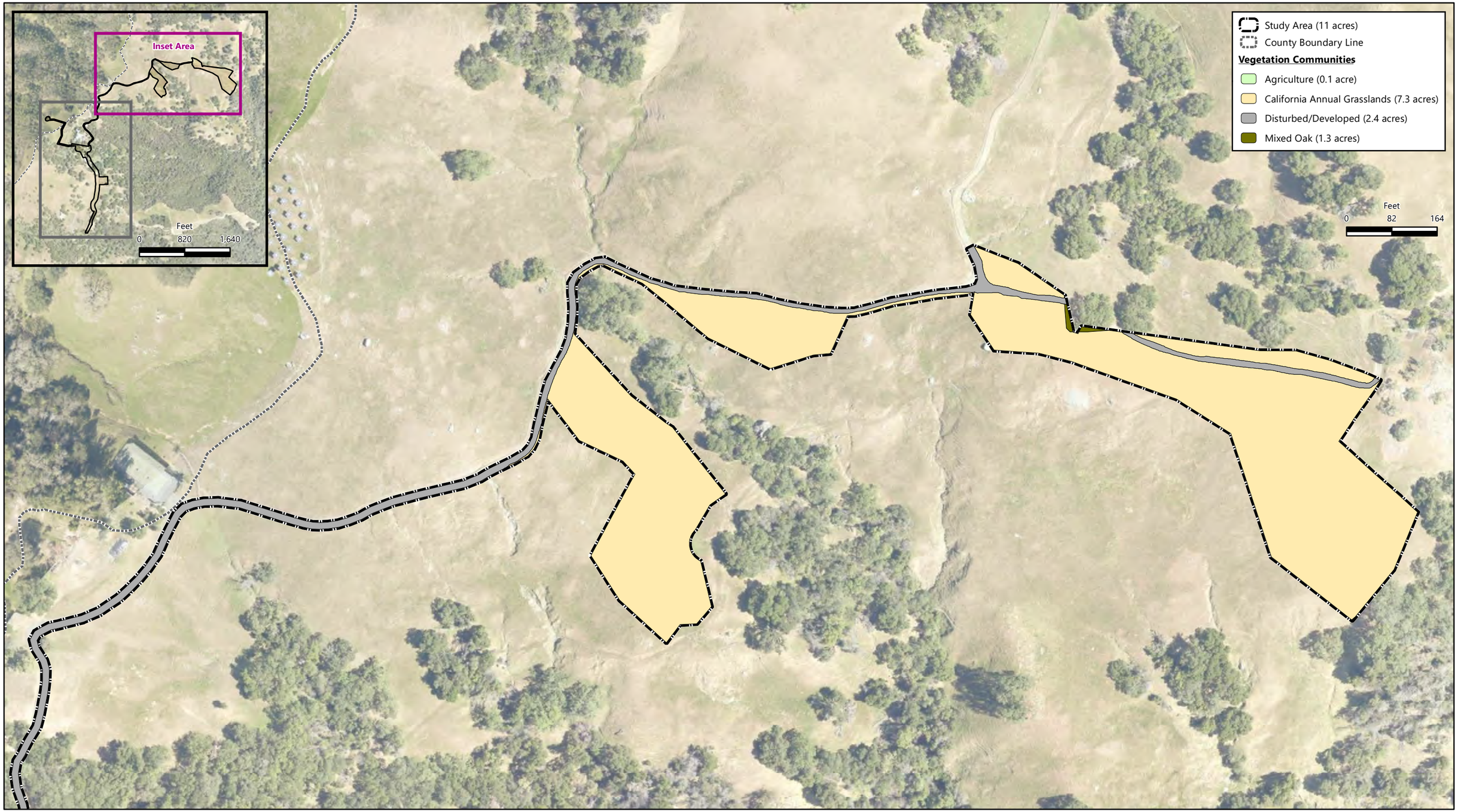


Figure 5b
Vegetation Communities

Tesseron Vineyards Winery
Sonoma County and Napa County, California

Note: Small sumation errors may occur due to rounding.
Aerial Source: Pictometry, 20 February 2021, and The County of Napa, 30 April 2021.

N

Figure 6
Aquatic Resources

Tesseron Vineyards Winery
Sonoma County and Napa County, California

Note: Small sumation errors may occur due to rounding.
Aerial Source: Pictometry, 20 February 2021, and The County of Napa, 30 April 2021.

Soil Survey Source: *USDA, Soil Conservation Service. Soil Survey Geographic (SSURGO) database for Sonoma County, California, and Napa County, California*
Aerial Source: Pictometry, 20 February 2021, and The County of Napa, 30 April 2021.

Figure 7
Natural Resources Conservation Service Soils

Tesseron Vineyards Winery
Sonoma County and Napa County, California

MADRONE ECOLOGICAL CONSULTING

Attachments

Attachment A. Tesseron Vineyards Winery Site Plan

Attachment B. IPaC Trust Resource Report for the Study Area

Attachment C. CNPS Inventory of Rare and Endangered Plants Query for the "Rutherford, California" USGS Quadrangle and Eight Surrounding Quadrangles

Attachment D. Plant and Wildlife List

Attachment E. Representative Site Photographs

Attachment F. Oak Tree, Pollinator Habitat, and Potential Special-Status Plant Mitigation Locations

Attachment A

Tesseron Vineyards Winery Site Plan

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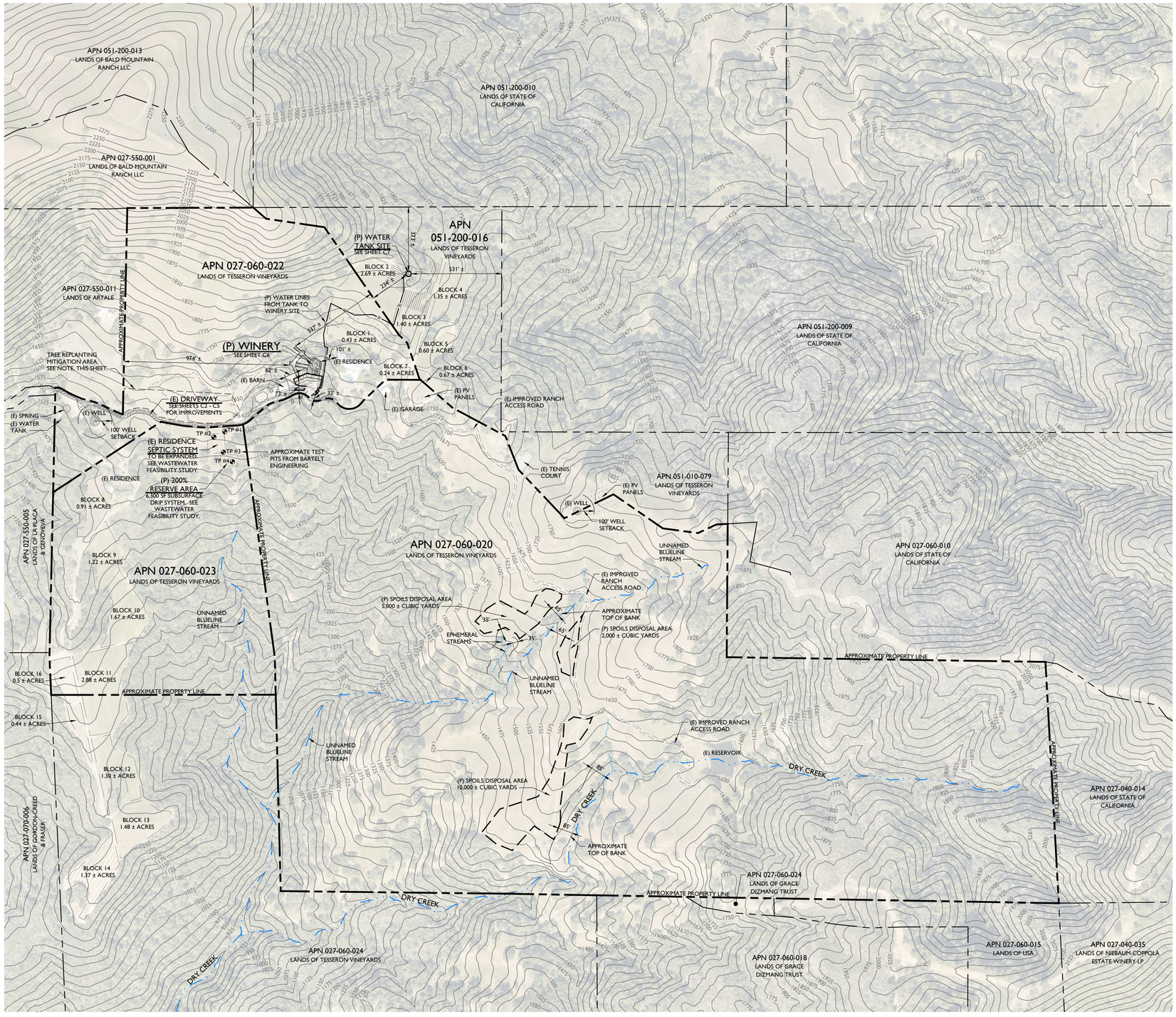
TESSERON VINEYARDS WINERY

CONCEPTUAL SITE IMPROVEMENT PLANS

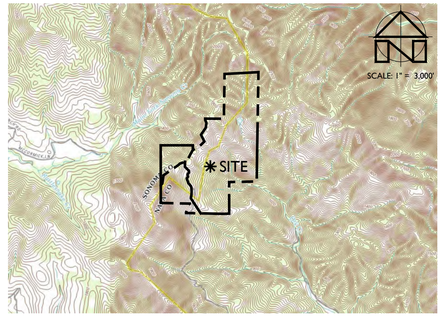


SCALE: 1" = 300'

0 300' 600'

OVERALL SITE PLAN

SCALE: 1" = 300'



LOCATION MAP

SCALE: 1" = 3,000'

PROJECT INFORMATION:

PROPERTY OWNER & APPLICANT:
TESSERON VINEYARDS
POST OFFICE BOX 46
SAINT HELENA, CA 94574

SITE ADDRESS:
1000 WALL ROAD
NAPA, CA 94558

ASSESSOR'S PARCEL NUMBERS:
027-060-020, 027-060-022, 027-060-023 & 051-200-016

PARCEL SIZES:
224.00 ±, 43.26 ±, 42.23 ± & 24.00 ± ACRES

PROJECT SIZE:
2.0 ± ACRES

ZONING:
AGRICULTURAL (AW)

SHEET INDEX:

PROJECT DESCRIPTION:

THE PURPOSE OF THIS PROJECT IS ILLUSTRATE THE CONCEPTUAL NATURE OF THE SITE IMPROVEMENTS PROPOSED AS PART OF THE WINERY USE PERMIT APPLICATION.

FLOOD HAZARD NOTE:

ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBERS 06055C0380E, 06055C0390E, EFFECTIVE DATE SEPTEMBER 26, 2008 AND 06097C0800E, EFFECTIVE DATE DECEMBER 2, 2008, THE PROJECT SITE IS NOT LOCATED IN A SPECIAL FLOOD HAZARD AREA. SEE FIRM FOR ADDITIONAL INFORMATION.

NOTES:

1. FADED BACKGROUND REPRESENTS EXISTING TOPOGRAPHIC FEATURES. TOPOGRAPHIC INFORMATION ON SHEET C1 WAS TAKEN FROM THE NAPA COUNTY GEOGRAPHIC INFORMATION SYSTEM DATABASE. TOPOGRAPHIC INFORMATION ON OTHER SHEETS WAS TAKEN ON FROM THE "MAP OF TOPOGRAPHY OF A PORTION OF THE LANDS OF 1100 WALL ROAD" PREPARED BY ALBION SURVEYS, INC., DATED APRIL 11, 2017 REVISED APRIL 25, 2022. APPLIED CIVIL ENGINEERING INCORPORATED ASSUMES NO LIABILITY REGARDING THE ACCURACY OR COMPLETENESS OF THE TOPOGRAPHIC INFORMATION.
2. AERIAL PHOTOGRAPHS ARE NADIR IMAGES CAPTURED BY PICTOMETRY INTERNATIONAL DATED JULY 15, 2021 AND MAY NOT REPRESENT CURRENT CONDITIONS.

   CONTOUR INTERVAL:

   SHEET C1: FIVE (5) FEET, HIGHLIGHTED EVERY TWENTY FIVE (25) FEET.
   OTHER SHEETS: ONE (1) FOOT, HIGHLIGHTED EVERY FIVE (5) FEET.
3. BENCHMARK: NAVD 88
4. THE PROPERTY LINES SHOWN ON THESE PLANS DO NOT REPRESENT A BOUNDARY SURVEY. THEY ARE APPROXIMATE AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

TREE REPLANTING MITIGATION NOTES:

1. SEE SHEET C6 FOR TREE REMOVAL.
2. REPLANT AT A 3:1 RATIO FOR ALL NATIVE TREES REMOVED IN THE AREA NOTED ON THIS SHEET.

CALL 1-800-227-2600 BEFORE YOU DIG
USA UNDERGROUND SERVICE ALERT

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Napa, CA 94559
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TESSERON VINEYARDS WINERY
CONCEPTUAL SITE IMPROVEMENT PLANS
OVERALL SITE PLAN

PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER
MICHAEL R. MILLER
No. 64435
EXP. 12/31/2024
CIVIL
STATE OF CALIFORNIA

FOR PERMIT REVIEW ONLY NOT FOR CONSTRUCTION

DRAWN BY: BT DRAFTING
CHECKED BY: MRM
DATE: JANUARY 3, 2023

REVISIONS:	BY:
1/3/2023	BT
⚠ PLAN CHECK REVISIONS	

JOB NUMBER: 17-108
FILE: 17-108CONC_OSP.DWG
ORIGINAL SIZE: 24" X 36"
SHEET NUMBER: C1
OF 9

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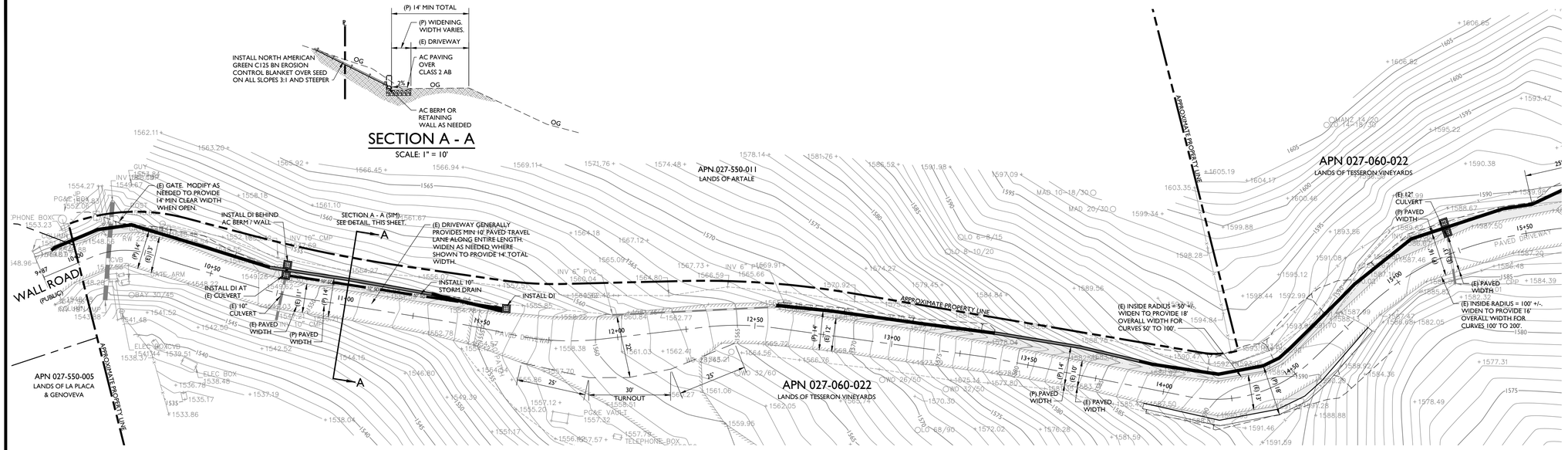
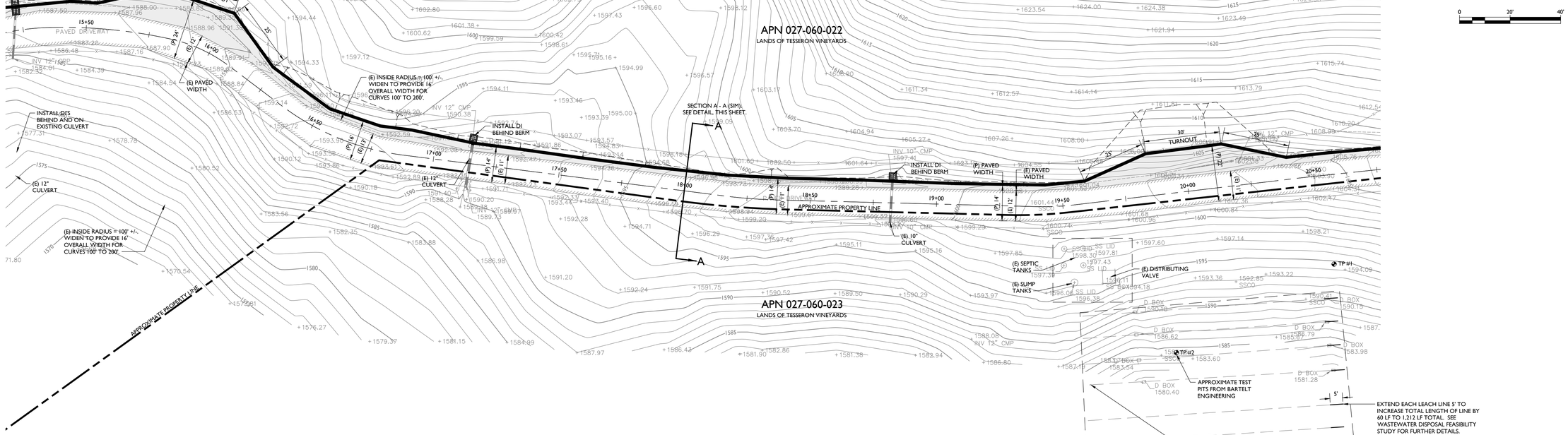


DRIVEWAY PLAN STA 9+87 TO STA 15+50

SCALE: 1" = 20'



DRIVEWAY PLAN STA 15+50 TO STA 20+75

SCALE: 1" = 20'

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TESSERON VINEYARDS WINERY

CONCEPTUAL SITE IMPROVEMENT PLANS
DRIVEWAY PLAN STA 9+87 TO STA 20+75

PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER
MICHAEL R. RUTHERFORD
No. 42435
Exp. 12/31/2024
3/3/2023
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SHEET NUMBER: C2 OF 9

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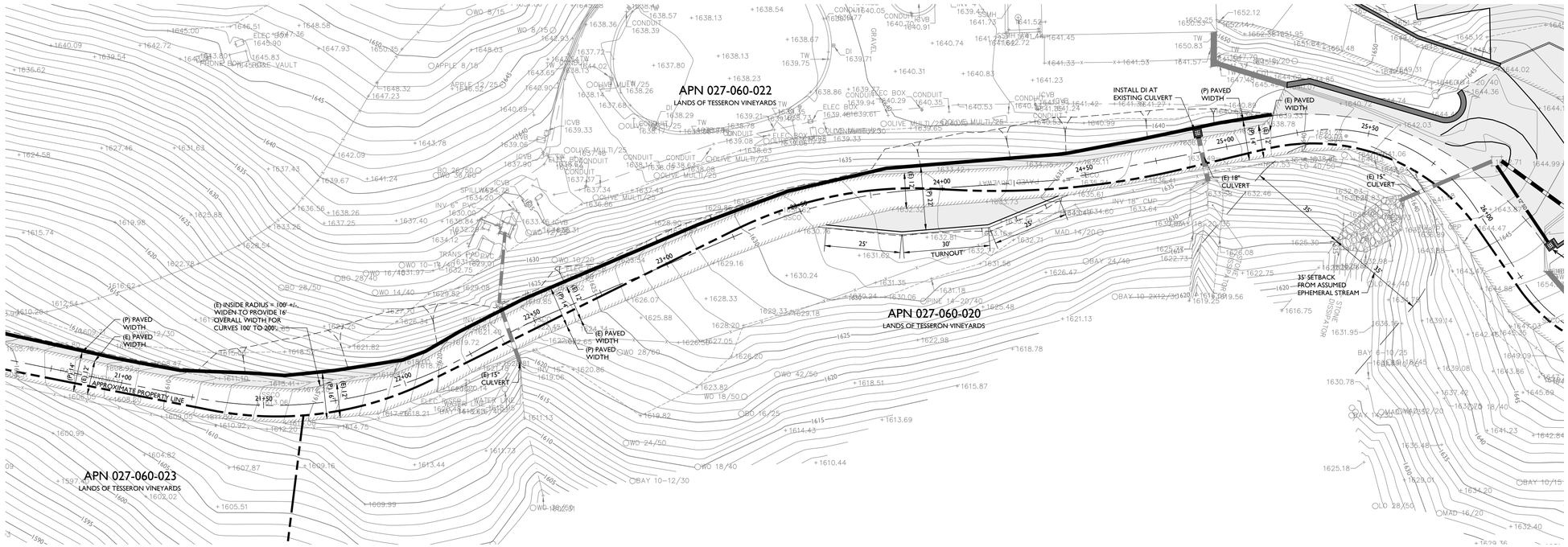

SCALE: 1" = 20'

0 20' 40'

DRIVEWAY PLAN STA 20+75 TO STA 26+00

SCALE: 1" = 20'

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TESSERON VINEYARDS WINERY

CONCEPTUAL SITE IMPROVEMENT PLANS
DRIVEWAY PLAN STA 20+75 TO STA 28+00

PREPARED UNDER THE DIRECTION OF:

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DATE: JANUARY 3, 2023

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1/3/2023 PLAN CHECK REVISIONS	BT

JOB NUMBER: 17-108

FILE: 17-108CONC_P&P.DWG

ORIGINAL SIZE: 24" X 36"

SHEET NUMBER: C3

OF 9

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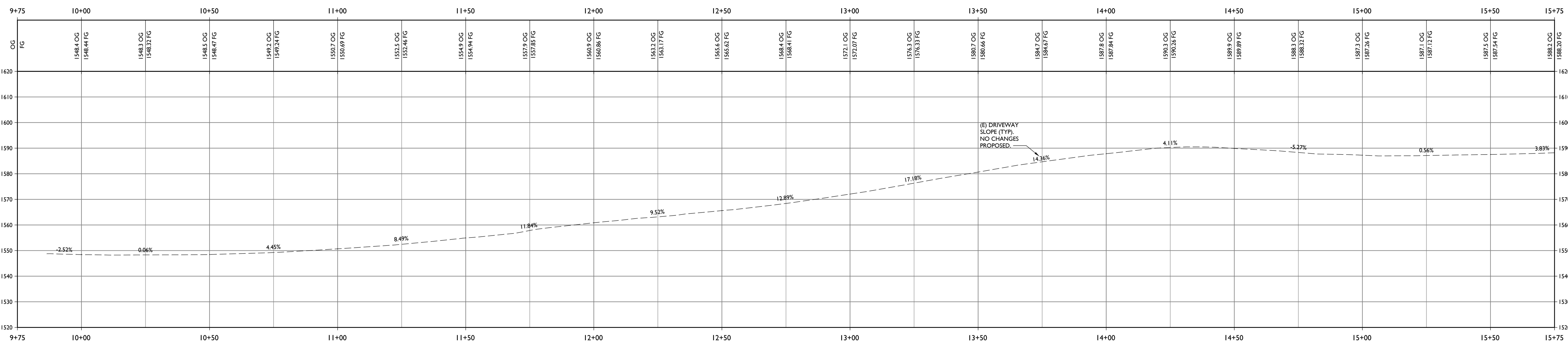
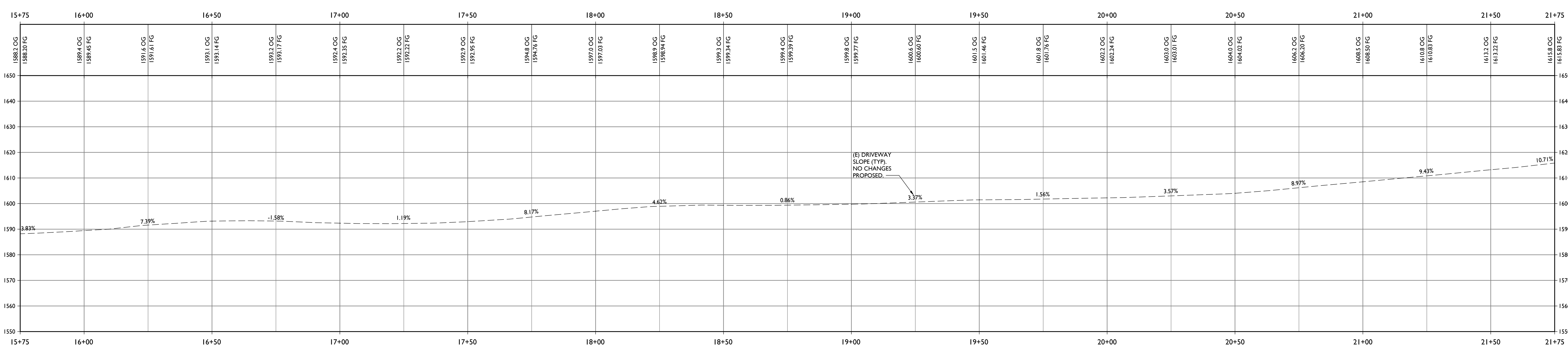


DRIVEWAY PROFILE STA 9+75 TO STA 15+75

SCALE: 1" = 20'



DRIVEWAY PROFILE STA 15+75 TO STA 21+75

SCALE: 1" = 20'

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CONCEPTUAL SITE IMPROVEMENT PLANS
DRIVEWAY PROFILE STA 9+75 TO STA 21+75

PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER
MICHAEL R. MUELRATH
MRM
NO. 67435
Exp. 12/31/2024
1/3/2023
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JOB NUMBER: 17-108

FILE: 17-108CONC_P&P.DWG

ORIGINAL SIZE: 24" X 36"

SHEET NUMBER: C4 OF 9

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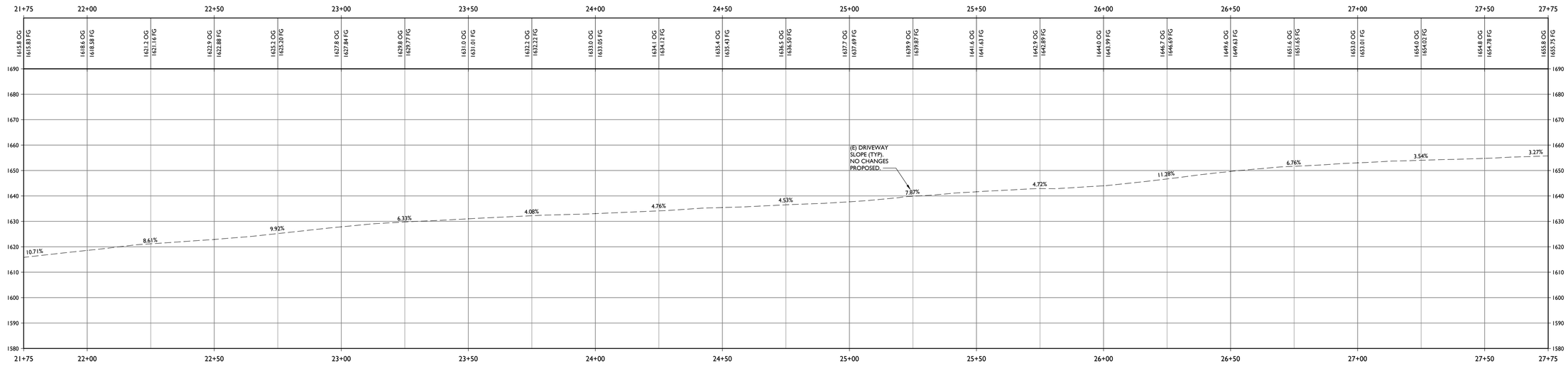

DRIVEWAY PROFILE STA 21+75 TO STA 27+75

SCALE: 1" = 20'

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TESSERON VINEYARDS WINERY

CONCEPTUAL SITE IMPROVEMENT PLANS
DRIVEWAY PROFILE STA 21+75 TO STA 27+75

PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER
MICHAEL R. MULLEN
No. 45415
Exp. 12/31/2024
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STATE OF CALIFORNIA

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1/3/2023 PLAN CHECK REVISIONS	BT

JOB NUMBER: 17-108

FILE: 17-108CONC_P&P.DWG

ORIGINAL SIZE: 24" X 36"

SHEET NUMBER: C5 OF 9

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DEMOLITION NOTES:

1. ALL ITEMS THAT ARE TO BE REMOVED ARE HIGHLIGHTED IN BLACK ON THIS PLAN FOR REFERENCE.
2. ALL EXISTING FEATURES NOT MARKED FOR REMOVAL ARE TO BE PROTECTED THROUGHOUT THE DURATION OF CONSTRUCTION.
3. ALL ITEMS THAT ARE DEMOLISHED AS PART OF THIS PROJECT ARE TO BE DISPOSED OF PROPERLY OFFSITE.
4. ALL EXCAVATIONS FOR UNDERGROUND UTILITY REMOVAL MUST BE FILLED WITH COMPACTED GRANULAR MATERIAL PER THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER.

TREE REMOVAL INVENTORY

Point #	Description
1284	OLIVE MULTI/25
1285	OLIVE MULTI/25
2996	OLIVE MULTI/25
2997	OLIVE MULTI/25
3182	LIVE OAK 18/30
3159	BAY 12-14/30
3158	BAY 8-10-12/30
3157	BAY 10/25
3156	BAY 16/30
3155	BAY 14/25
3152	BAY 2X8-2X14/40
3149	LIVE OAK 6-12/30

Point #	Description
3143	BAY 2X6-20/30
3142	BAY 6-12/25
3141	BAY 6-2X12/30
3140	BAY 2X8-2X12/40
3139	BAY 2X10-14/30
3099	LIVE OAK 10-12/30
3098	LIVE OAK 2X8/25
3438	ORN MULTI/15
3437	ORN MULTI/15
3436	ORN MULTI/15
3435	ORN MULTI/15

Description
BAY 2X 6-20 / 30
- DRIPLINE Ø FEET
- TRUNK Ø INCHES
- MULTI TRUNK
- TREE TYPE

TREE REMOVAL SUMMARY:

11 BAY TREES
4 LIVE OAK TREES
8 OLIVE AND ORNAMENTAL TREES

*SEE SHEET C1 FOR 3:1 REPLANTING TO MITIGATE FOR REMOVAL OF 15 NATIVE TREES.

SCALE: 1" = 20'
0 20' 40'

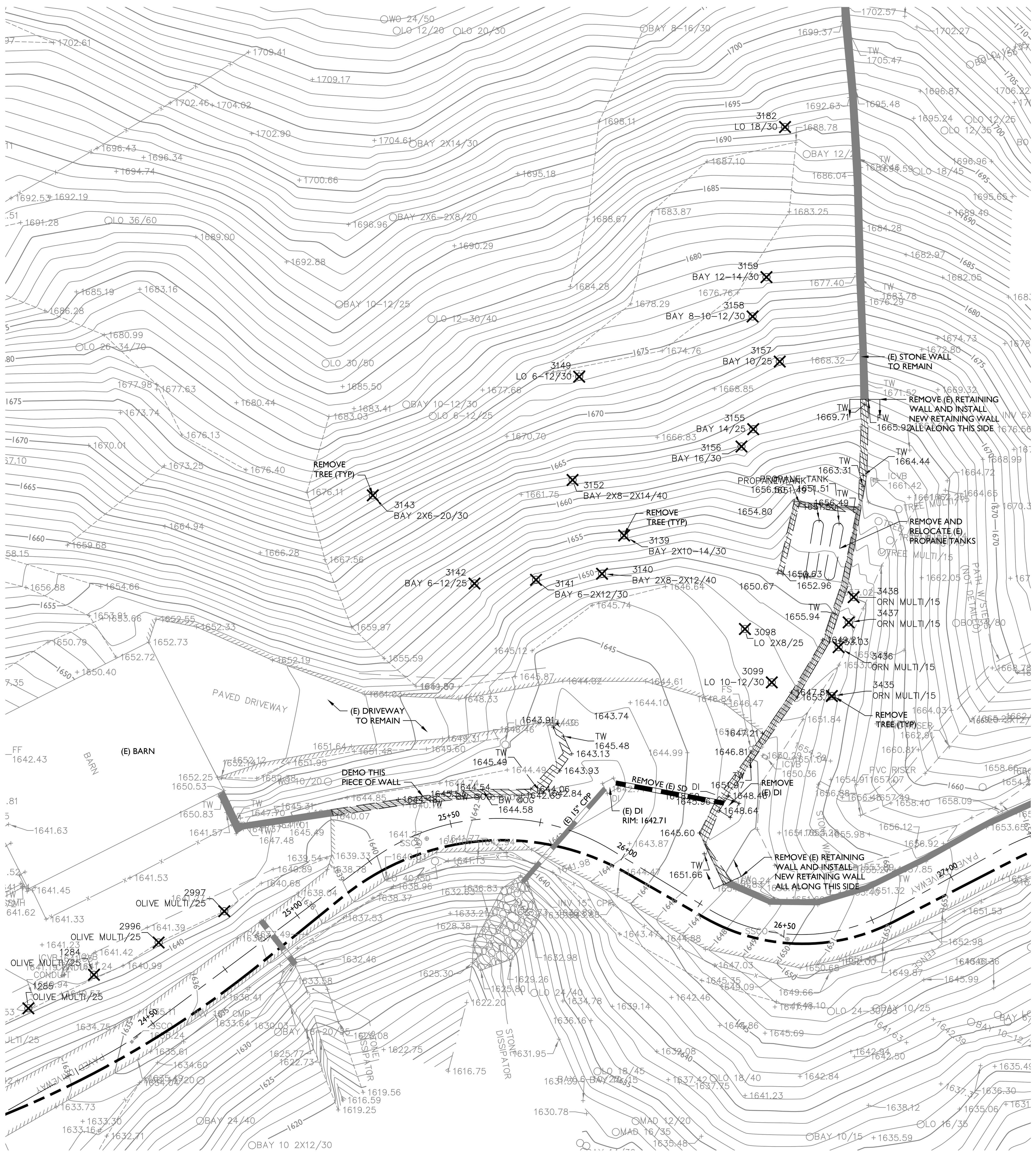
SLOPE SECTIONS

A - A	29 %
B - B	26 %
C - C	16 %
AVERAGE	24 %

SCALE: 1" = 20'
0 20' 40'

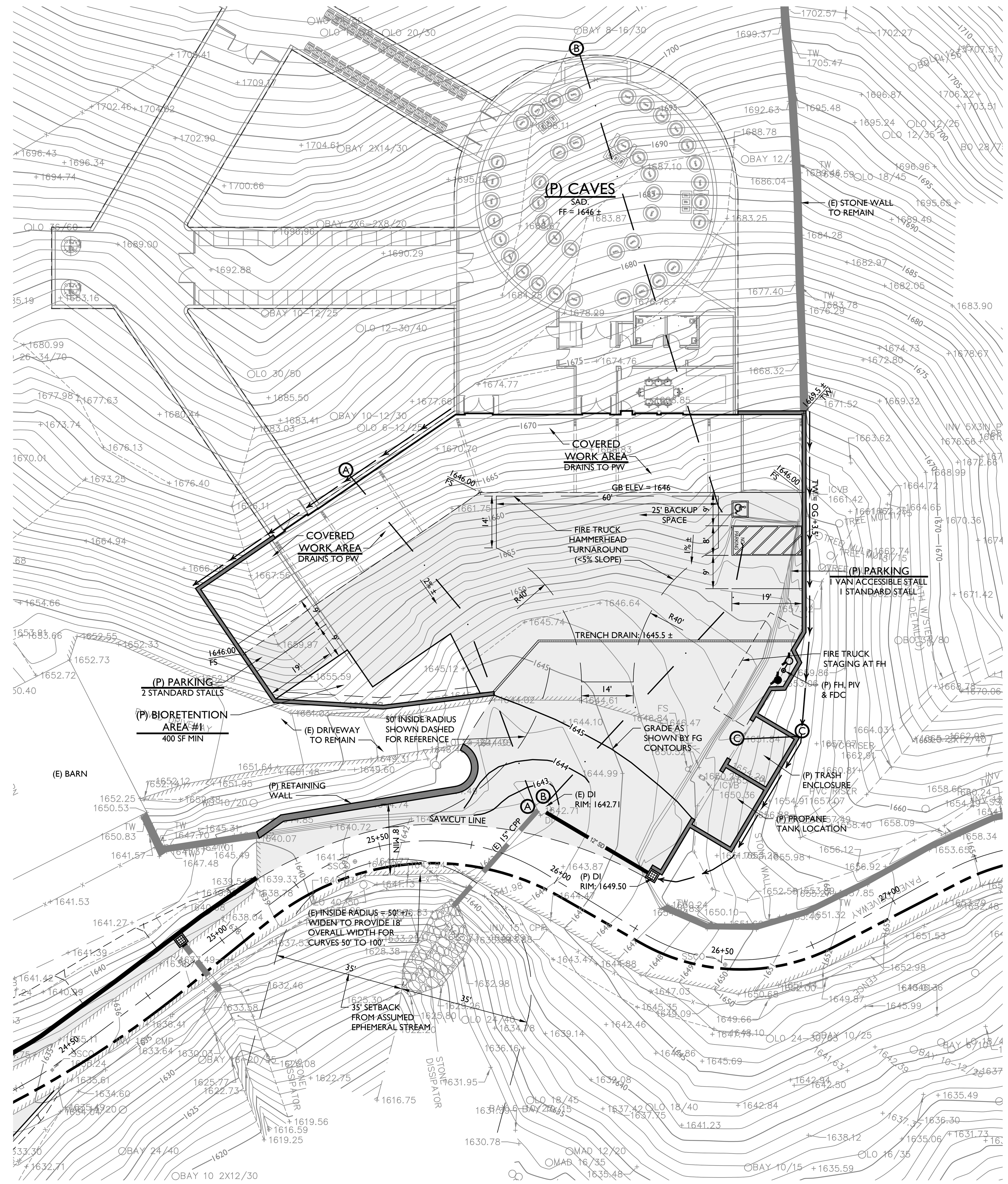
LEGEND:

APPROXIMATE PROPERTY LINE (SUBJECT PARCEL)
SLOPE SECTION. SEE TABLE, THIS SHEET.



DEMOLITION PLAN

SCALE: 1" = 20'



WINERY CONCEPTUAL PLAN

SCALE: 1" = 20'

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TESSERON VINEYARDS WINERY

CONCEPTUAL SITE IMPROVEMENT PLANS
WINERY DEMOLITION & CONCEPTUAL PLAN

PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER MICHAEL R. MUELRATH No. 67435 Exp. 12/31/2024 1/3/2023 CIVIL STATE OF CALIFORNIA
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JOB NUMBER: 17-108

FILE: 17-108CONC_SITE.DWG

ORIGINAL SIZE: 24" X 36"

SHEET NUMBER: C6 OF 9

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WATER TANK CONCEPTUAL PLAN

SCALE: 1" = 10'

SCALE: 1" = 10'

0 10' 20'

SLOPE SECTIONS

A - A	27 %
B - B	25 %
C - C	28 %
AVERAGE	27 %

LEGEND:

SLOPE SECTION. SEE TABLE, THIS SHEET.

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TESSERON VINEYARDS WINERY

CONCEPTUAL SITE IMPROVEMENT PLANS
WATER TANK CONCEPTUAL PLAN

PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER
MICHAEL R. MULLEN
No. 45435
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STATE OF CALIFORNIA

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JOB NUMBER: 17-108

FILE: 17-108CONC_SITE.DWG

ORIGINAL SIZE: 24" X 36"

SHEET NUMBER: C7

OF 9

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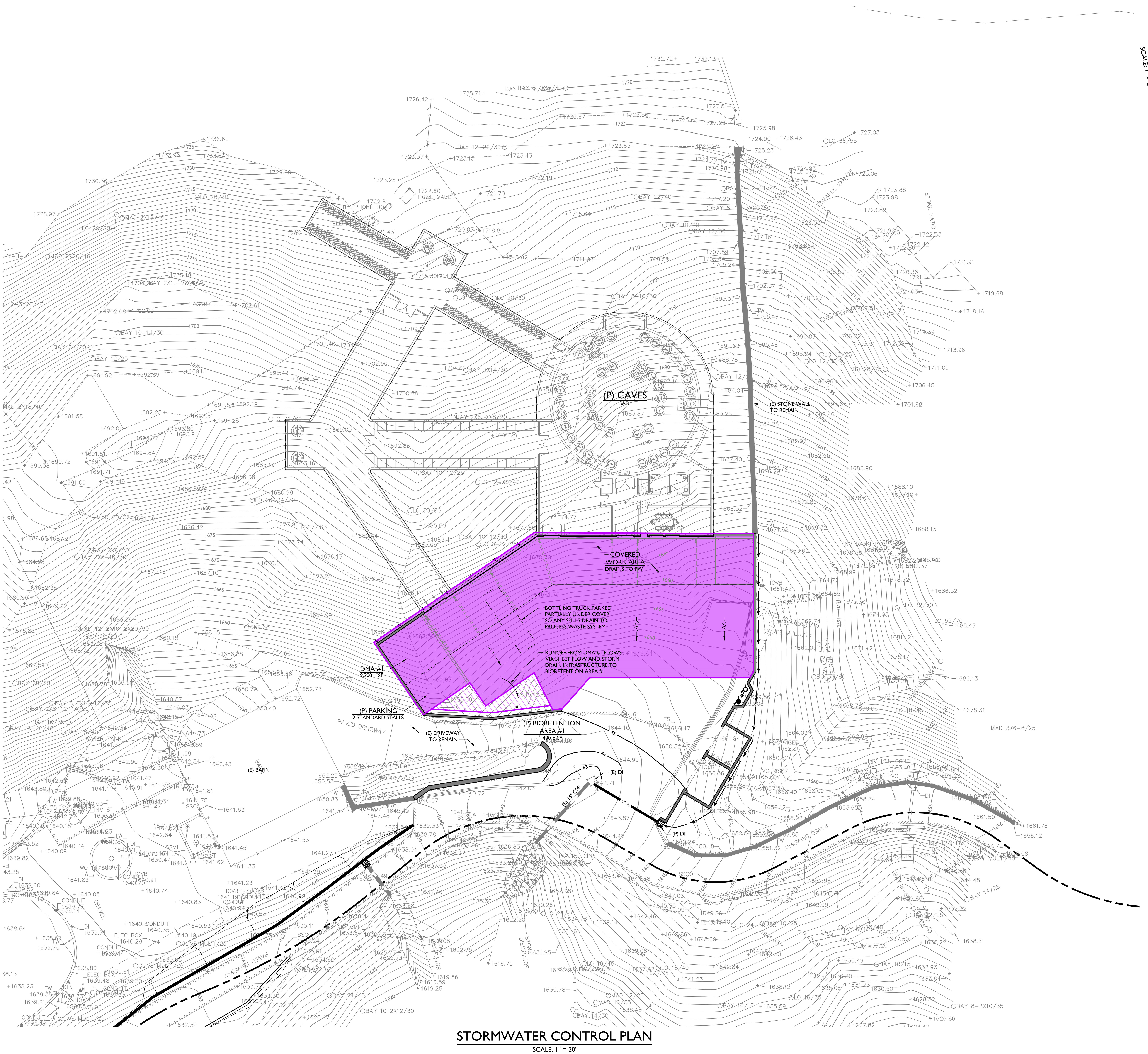

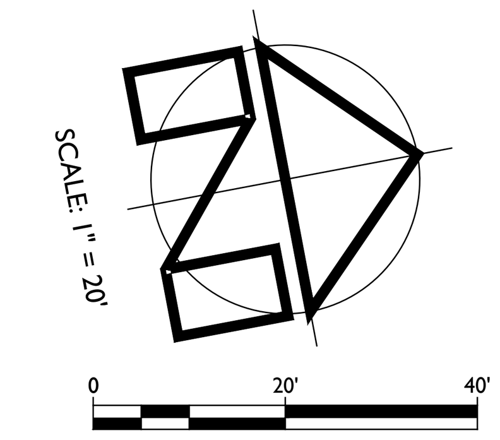

STORMWATER CONTROL PLAN

SCALE: 1" = 20'

DRAINAGE MANAGEMENT AREAS (SQ FT)	
DMA AREA	#1
PERVIOUS AREA	0
IMPERVIOUS AREA	9,200 ±
TOTAL	9,200 ±

DMA LEGEND:

- SHEET FLOW DIRECTION
- IMPERVIOUS AREA (COLOR VARIES BY DMA)
- BIORETENTION AREA (COLOR VARIES BY DMA)

PROPOSED SURFACE LEGEND:

- LIGHT DUTY PCC
- DECOMPOSED GRANITE
- LANDSCAPE WALL

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TESSERON VINEYARDS WINERY

CONCEPTUAL SITE IMPROVEMENT PLANS
STORMWATER CONTROL PLAN

PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER MICHAEL R. MUELRATH NO. 67435 Exp. 12/31/2024 1/3/2023 CIVIL STATE OF CALIFORNIA

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REVISIONS:	BY:
1 1/3/2023 PLAN CHECK REVISIONS	BT

JOB NUMBER: 17-108

FILE: 17-108CONC_SCP.DWG

ORIGINAL SIZE: 24" X 36"

SHEET NUMBER: C8 OF 9

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IMPERVIOUS SURFACE EXHIBIT

SCALE: 1" = 50'

IMPERVIOUS SURFACE SUMMARY

	PRE-PROJECT AREA (SF)	NEW AREA (SF)	*RECONSTRUCTED AREA (SF) A	*RECONSTRUCTED AREA (SF) B	TOTAL NEW AND RECONSTRUCTED AREA (SF)
TOTAL IMPERVIOUS AREAS	29,522 ±	17,496 ±	2,745 ±	0	20,241 ±

*RECONSTRUCTED AREAS (A) ARE EXISTING IMPERVIOUS SURFACES THAT ARE BEING REPLACED WITH NEW IMPERVIOUS SURFACES.
RECONSTRUCTED AREAS (B) ARE EXISTING IMPERVIOUS SURFACES THAT ARE BEING REPLACED WITH PERVIOUS SURFACES.

0.96 ± ACRES (41,872 ± SF) — (P) WINERY COVERAGE AREA

0.08 ± ACRES (3,726 ± SF) — (P) WINERY DEVELOPMENT AREA

APPLIED CIVIL ENGINEERING INCORPORATED
2160 Jefferson Street, Suite 230
Napa, CA 94559
(707) 320-4988 | www.appliedcivil.com

TESSERON VINEYARDS WINERY

CONCEPTUAL SITE IMPROVEMENT PLANS
IMPERVIOUS SURFACE EXHIBIT

PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER MICHAEL R. MURRAY NO. 84435 EXP. 12/31/2024 CIVIL STATE OF CALIFORNIA

FOR PERMIT REVIEW PURPOSES ONLY

DRAWN BY: BT DRAFTING

CHECKED BY: MRM

DATE: JANUARY 3, 2023

REVISIONS:	BY:
1/3/2023 PLAN CHECK REVISIONS	BT

JOB NUMBER: 17-108

FILE: 17-108CONC_ISE.DWG

ORIGINAL SIZE: 24" X 36"

SHEET NUMBER: C9

OF 9

Attachment B

IPaC Trust Resource Report for the Study Area

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Napa and Sonoma counties, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

NOT FOR CONSULTATION

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
Northern Spotted Owl Strix occidentalis caurina Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/1123	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle Chelonia mydas No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6199	Threatened
Northwestern Pond Turtle Actinemys marmorata Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

NOT FOR CONSULTATION

Flowering Plants

NAME	STATUS
Clara Hunt's Milk-vetch *Astragalus clarianus* Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3300	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

NOT FOR CONSULTATION

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

NOT FOR CONSULTATION

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

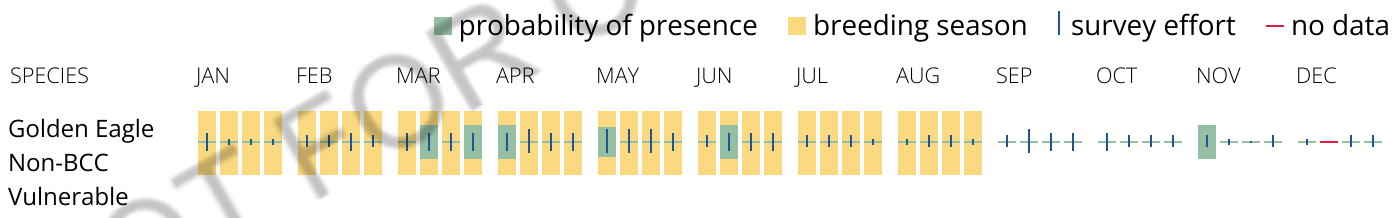
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



NOT FOR CONSULTATION

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply). To see a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

NOT FOR CONSULTATION

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see

exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Belding's Savannah Sparrow Passerculus sandwichensis beldingi This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Bullock's Oriole Icterus bullockii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25
California Thrasher Toxostoma redivivum This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Common Yellowthroat Geothlypis trichas sinuosa This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31

NOT FOR CONSULTATION

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Long-eared Owl asio otus — Breeds Mar 1 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

NOT FOR CONSULTATION

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey

effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

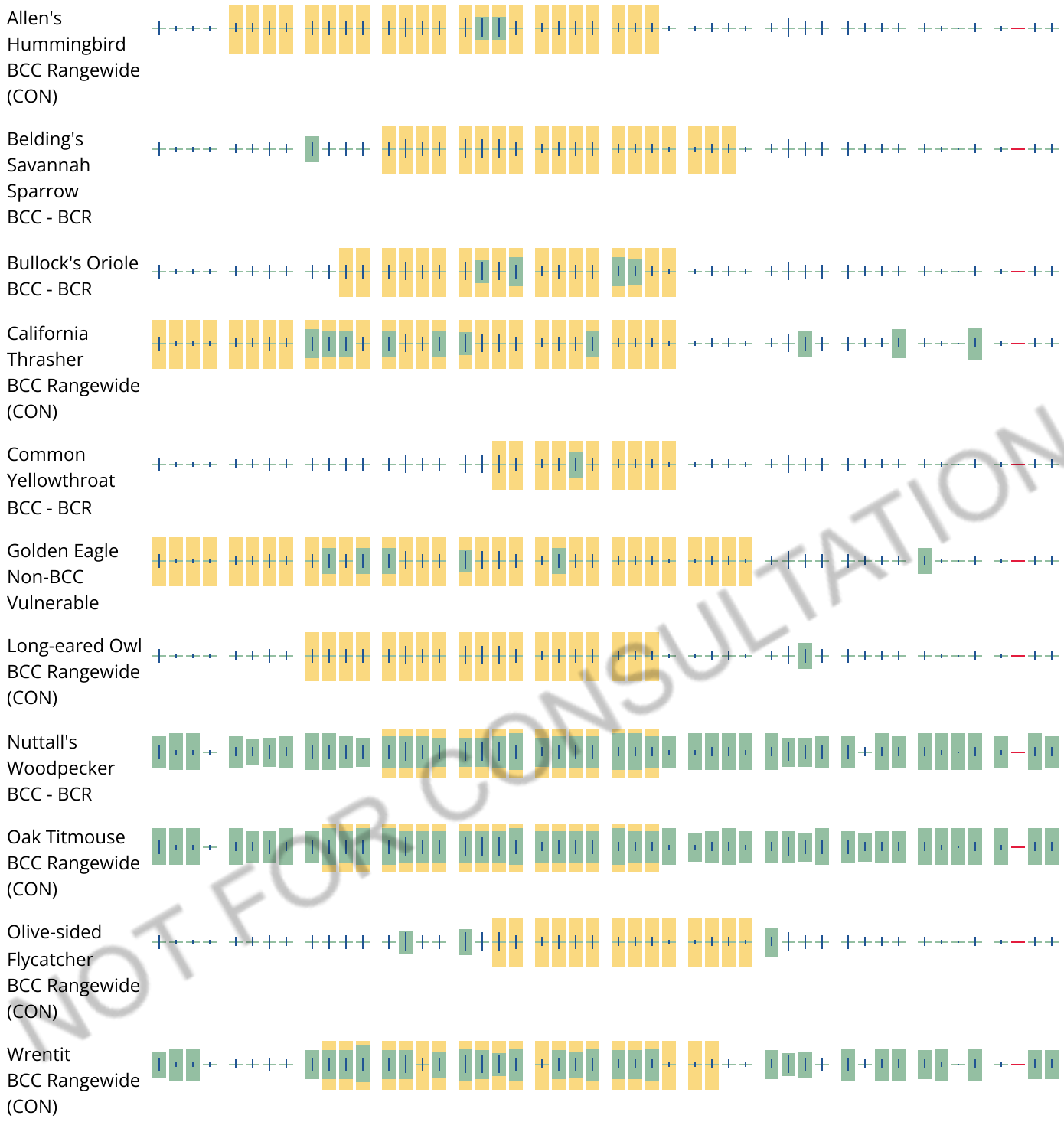
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

NOT FOR CONSULTATION



NOT FOR CONSULTATION

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

NOT FOR CONSULTATION

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

NOT FOR CONSULTATION

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

NOT FOR CONSULTATION

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Attachment C

CNPS Inventory of Rare and Endangered Plants Query for the "Rutherford, California" USGS Quadrangle and Eight Surrounding Quadrangles

https://rareplants.cnps.org/Search/result?frm=T&qsl=9&quad=3812253:3812254:3812255:3812234:3812243:3812244:3812245:3812233:3812235:&elev=:m:o

Scientific Name	Common Name	CRPR	CESA	FESA	Blooming Period	Elevation Low ft	Elevation High ft
Allium peninsulare var. franciscanum	Franciscan onion	1B.2	None	None	(Apr)May-Jun	170	1000
Alopecurus aequalis var. sonomensis	Sonoma alopecurus	1B.1	None	FE	May-Jul	15	1200
Amorpha californica var. napensis	Napa false indigo	1B.2	None	None	Apr-Jul	165	6560
Amsinckia lunaris	bent-flowered fiddleneck	1B.2	None	None	Mar-Jun	10	1640
Arctostaphylos stanfordiana ssp. decumbens	Rincon Ridge manzanita	1B.1	None	None	Feb-Apr(May)	245	1215
Astragalus claranus	Clara Hunt's milk-vetch	1B.1	CE	FE	Mar-May	245	900
Astragalus tener var. tener	alkali milk-vetch	1B.2	None	None	Mar-Jun	5	195
Balsamorhiza macrolepis	big-scale balsamroot	1B.2	None	None	Mar-Jun	150	5100
Blennosperma bakeri	Sonoma sunshine	1B.1	CE	FE	Mar-May	35	360
Brodiaea leptandra	narrow-anthered brodiaea	1B.2	None	None	May-Jul	360	3000
Castilleja ambigua var. meadii	Mead's owls-clover	1B.1	None	None	Apr-May	1475	1560
Ceanothus confusus	Rincon Ridge ceanothus	1B.1	None	None	Feb-Jun	245	3495
Ceanothus divergens	Calistoga ceanothus	1B.2	None	None	Feb-Apr	560	3115
Ceanothus purpureus	holly-leaved ceanothus	1B.2	None	None	Feb-Jun	395	2100
Ceanothus sonomensis	Sonoma ceanothus	1B.2	None	None	Feb-Apr	705	2625
Centromadia parryi ssp. parryi	pappose tarplant	1B.2	None	None	May-Nov	0	1380
Downingia pusilla	dwarf downingia	2B.2	None	None	Mar-May	5	1460
Erigeron biolettii	streamside daisy	3	None	None	Jun-Oct	100	3610
Erigeron greenei	Greene's narrow-leaved daisy	1B.2	None	None	May-Sep	260	3295
Eryngium constancei	Loch Lomond button-celery	1B.1	CE	FE	Apr-Jun	1510	2805
Eryngium jepsonii	Jepson's coyote-thistle	1B.2	None	None	Apr-Aug	10	985
Extriplex joaquinana	San Joaquin spearscale	1B.2	None	None	Apr-Oct	5	2740
Fritillaria liliacea	fragrant fritillary	1B.2	None	None	Feb-Apr	10	1345
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	1B.2	None	None	Apr-Nov	65	1835
Hesperolinon sharsmithiae	Sharsmith's western flax	1B.2	None	None	May-Jul	885	985
Horkelia tenuiloba	thin-lobed horkelia	1B.2	None	None	May-Jul(Aug)	165	1640
Lasthenia burkei	Burke's goldfields	1B.1	CE	FE	Apr-Jun	50	1970
Lasthenia conjugens	Contra Costa goldfields	1B.1	None	FE	Mar-Jun	0	1540
Lathyrus jepsonii var. jepsonii	Delta tule pea	1B.2	None	None	May-Jul(Aug-Sep)	0	15
Layia septentrionalis	Colusa layia	1B.2	None	None	Apr-May	330	3595
Legenere limosa	legenere	1B.1	None	None	Apr-Jun	5	2885
Leptosiphon jepsonii	Jepson's leptosiphon	1B.2	None	None	Mar-May	330	1640
Lessingia hololeuca	woolly-headed lessingia	3	None	None	Jun-Oct	50	1000
Lilaeopsis masonii	Mason's lilaeopsis	1B.1	CR	None	Apr-Nov	0	35
Limnanthes vinculans	Sebastopol meadowfoam	1B.1	CE	FE	Apr-May	50	1000
Lupinus sericatus	Cobb Mountain lupine	1B.2	None	None	Mar-Jun	900	5005
Micropus amphibolus	Mt. Diablo cottonweed	3.2	None	None	Mar-May	150	2705
Navarretia leucocephala ssp. bakeri	Baker's navarretia	1B.1	None	None	Apr-Jul	15	5710
Navarretia leucocephala ssp. pauciflora	few-flowered navarretia	1B.1	CT	FE	May-Jun	1310	2805
Navarretia rosulata	Marin County navarretia	1B.2	None	None	May-Jul	655	2085

Penstemon newberryi var. sonomensis	Sonoma beardtongue	1B.3	None	None	Apr-Aug	2295	4495
Plagiobothrys strictus	Calistoga popcornflower	1B.1	CT	FE	Mar-Jun	295	525
Poa napensis	Napa blue grass	1B.1	CE	FE	May-Aug	330	655
Puccinellia simplex	California alkali grass	1B.2	None	None	Mar-May	5	3050
Sagittaria sanfordii	Sanford's arrowhead	1B.2	None	None	May-Oct(Nov)	0	2135
Sidalcea hickmanii ssp. napensis	Napa checkerbloom	1B.1	None	None	Apr-Jun	1360	2000
Sidalcea oregana ssp. hydrophila	marsh checkerbloom	1B.2	None	None	(Jun)Jul-Aug	3610	7545
Sidalcea oregana ssp. valida	Kenwood Marsh checkerbloom	1B.1	CE	FE	Jun-Sep	375	490
Spergularia macrotheca var. longistyla	long-styled sand-spurrey	1B.2	None	None	Feb-May	0	835
Streptanthus hesperidis	green jewelflower	1B.2	None	None	May-Jul	425	2495
Symphyotrichum lentum	Suisun Marsh aster	1B.2	None	None	(Apr)May-Nov	0	10
Trichostema ruygtii	Napa bluecurls	1B.2	None	None	Jun-Oct	100	2230
Trifolium amoenum	two-fork clover	1B.1	None	FE	Apr-Jun	15	1360
Trifolium hydrophilum	saline clover	1B.2	None	None	Apr-Jun	0	985
Viburnum ellipticum	oval-leaved viburnum	2B.3	None	None	May-Jun	705	4595

Attachment D

Plant and Wildlife List

Plant and Wildlife Species Observed within the Tesserone Vineyards Winery Study Area 18 October 2023

Plant Species Name	Common Name
Toxicodendron diversilobum	Western poison oak
Foeniculum vulgare	Fennel
Torilis arvensis	Tall sock-destroyer
Vinca major	Greater periwinkle
Achillea millefolium	Yarrow
Baccharis pilularis subsp. pilularis	Coyote brush
Carduus pycnocephalus subsp. pycnocephalus	Italian thistle
Helminthotheca echioides	Bristly ox-tongue
Hemizonia congesta subsp. luzulifolia	
Heterotheca grandiflora	Telegraph weed
Tragopogon dubius	Yellow salsify
Stellaria media	Common chickweed
Arbutus menziesii	Pacific madrone
Croton setiger	Turkey-mullein
Acmispon americanus var. americanus	Spanish lotus
Vicia villosa subsp. villosa	Winter vetch
Quercus agrifolia	Coast live oak
Quercus berberidifolia	Scrub oak
Quercus douglasii	Blue oak
Quercus lobata	Valley oak
Quercus wislizeni	Interior live oak
Erodium botrys	Filaree
Erodium brachycarpum	White Stemmed filaree
Lamium amplexicaule	Henbit
Stachys rigida	
Umbellularia californica	California bay
Ficus carica	Edible fig
Olea europaea	Cultivated olive
Plantago lanceolata	English plantain
Avena barbata	Slender wild oat
Avena fatua	Wild oat
Bromus diandrus	Ripgut grass
Bromus hordeaceus	Soft chess
Cynodon dactylon	Bermuda grass
Cynosurus echinatus	Bristly dogtail grass
Elymus caput-medusae	Medusa head
Festuca perennis	Rye grass
Polygonum aviculare	Knotweed, knotgrass
Heteromeles arbutifolia	Toyon

Plant Species Name	Common Name
Verbascum thapsus	Woolly mullein
Vitis vinifera	Wine grape

Wildlife Species Name	Common Name
Cathartes aura	Turkey Vulture
Patagioenas fasciata	Band-tailed Pigeon
Zenaida macroura	Mourning Dove
Melanerpes formicivorus	Acorn Woodpecker
Colaptes auratus	Northern Flicker
Sayornis nigricans	Black Phoebe
Sialia mexicana	Western Bluebird
Mimus polyglottos	Northern Mockingbird
Sturnus vulgaris	European Starling
Melozone crissalis	California Towhee
Agelaius phoeniceus	Red-winged Blackbird
Sceloporus occidentalis	Western fence lizard

Attachment E

Representative Site Photographs

Proposed wine cave location in mixed oak woodland, facing west, 18 October 2023

Water tower location, Sonoma County portion of the Study Area, facing west, 18 October 2023

Water line location, facing southeast towards wine cave location, 18 October 2023

Existing winery road and road widening area, facing south, 18 October 2023

Existing winery road and road widening area just east of the cave site, facing south, 18 October 2023

Access road to spoils disposal area and proposed disposal area, facing west, 18 October 2023

Typical spoils disposal area, facing south, 18 October 2023

Off-site ephemeral drainage east of the Study Area, facing south, 18 October 2023

NWI mapped off-site feature and small portion of on-site culvert/ephemeral drainage, facing south, 18 October 2023

Attachment F

Oak Tree, Pollinator Habitat, and Potential Special-Status Plant Mitigation Locations

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Note: Small sumation errors may occur due to rounding.
Aerial Source: The County of Napa, 30 April 2021.

Attachment F
Oak Tree, Pollinator Habitat and Potential Special-Status Plant Mitigation Locations
Tesseron Vineyards Winery
Sonoma County and Napa County, California

MADRONE ECOLOGICAL CONSULTING